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ABSTRACT

This guide presents step-by-step strategies for analyzing workplace literacy training needs through collaborative business, adult basic education (ABE), and worker partnerships. The first chapter provides an overview of literacy in the workplace and highlights challenges currently facing Minnesota and the nation as a whole in meeting needs for a work force with enhanced skills. Chapter 2 discusses these topics: the roles and functions of unions, business, ABE programs, and workers in establishing literacy training programs and outlines procedures for establishing a collaborative workplace literacy planning team. Included among the workplace literacy training needs assessment procedures examined in chapter 3 are worker-centered needs assessments, formal and informal assessments, job and task analyses, basic skills analyses, and appraisals of workers' needs for support services. The following aspects of designing a workplace literacy program are covered in Chapter 4: setting program goals, selecting an educational partner, using curriculum design concepts, and determining instructional approaches and strategies. Chapter 5, which focuses on ensuring meaningful worker participation, discusses marketing programs to workers, compulsory versus voluntary participation, and incentives. Appended are lists of Minnesota and national ABE contacts, a list of eight literacy references, and sample forms. (MN)

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ED 361 534

ASSESSING WORKPLACE LITERACY TRAINING NEEDS IN MINNESOTA

Promoting Labor, Industry, Education, and Worker Participation

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MINNESOTA TEAMSTERS
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ASSESSING WORKPLACE LITERACY TRAINING NEEDS IN MINNESOTA

Promoting Labor, Industry, Education, and Worker Participation

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Minnesota Teamsters
Service Bureau

July 1992

FOREWORD

The challenges confronting today's workers are immense. Literacy in the workplace ranks high among the concerns of Minnesota's labor organizations, businesses, and educational institutions. Increased competition from abroad and changes in the labor economy requires that workers possess higher level skills than ever before. Where previous generations could leave school and learn a job at age eighteen and use those same skills until retirement, workers today are often required to learn new skills seemingly every few months. While many workers can successfully meet these new learning challenges, others experience difficulties. Workplace literacy education offers these workers new and important opportunities to grow with changes they experience in their jobs.

This guide emphasizes the importance of establishing labor, industry, education, and worker partnerships in addressing our increasing concerns over literacy in the workplace. Each partner is critically needed to ensure that comprehensive and high quality training programs are designed and made available to workers. Unions, we believe, are in a unique position to promote the positive nature of workplace literacy education among workers and businesses. Workers themselves must, however, be integrally involved and considered equal partners in the planning of workplace literacy programs. This message is carried throughout this guide.

We are appreciative of the contributions made by the many people who assisted us in preparing this guide. A special thanks goes to the members of our steering committee: Donna Chester of Service Employees International Union Local 113; John Tormanen of Riverside Medical Center; Pat Nash of the Bloomington Public Schools, Community Education Department; and members of our Minnesota Teamsters Service Bureau staff who all helped in planning the guide. We also want to recognize the leadership of the Minnesota Teamsters Joint Council 32. President Harold Yates, Secretary-Treasurer David Morris, and the Service Bureau's Administrator, Jack Mogelson, have actively supported our work in this area. Finally, we thank Dr. David R. Johnson who had primary responsibility for preparing this guide. He was instrumental in helping to shape our vision for this guide.

The challenges ahead are clearly enormous ones. We remain convinced, however, that through the strength of our collective efforts we can resolve the growing dilemma of illiteracy in the workplace. To this end, we present this guide in the hopes that it will contribute to making available new learning opportunities for Minnesota's workers.

Jean C. Dunn, Executive Director
Minnesota Teamsters Service Bureau
Minneapolis, Minnesota
July 1992

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CHAPTER 1

LITERACY IN THE WORKPLACE: A GROWING DILEMMA

The organized labor movement realizes that education is not an arbitrary thing that automatically ends with a certain year of life, but that it must continue throughout life and if the individual is really to live and make progress...[unions] realize that education is an attitude toward life - an ability to see and understand problems and to utilize information and forces for the best solution of life's problems.

Samuel Gompers, First President, American Federation of Labor,
Address to Teachers, 1916

Minnesota is nationally recognized for the quality of its educational programs, competitive labor force, and productivity of its citizens. Increasingly, however, Minnesota businesses, labor organizations, and educational institutions are acknowledging that the literacy skills of many adults need to be improved. It is estimated that over 200,000 adults statewide have basic skills below the levels minimally expected by industry for job entry (Minnesota Interagency Adult Literacy Policy Group, 1988).

Individuals, families, businesses, unions, and our educational systems are all directly affected by this problem. While adult illiteracy is a challenge to all Minnesotans, it has become a special problem for businesses and labor organizations. Lowered productivity, declines in product and service quality, and rising job turnover rates are all strong signals of the growing literacy dilemma in Minnesota and the nation. Illiteracy in the workplace is, however, a problem which can be solved. Given the magnitude of the problem, Minnesota businesses, labor organizations, and educational programs cannot act alone in attempting to improve the workplace literacy skills of today's workers. Instead, strong partnerships between public and private sectors must be formed to make any sizable inroads in remedying this situation.

Organization of the Guide

This guide contains step-by-step strategies for analyzing workplace literacy training needs through collaborative union, business, Adult Basic Education (ABE), and worker partnerships. We advocate that workers must be viewed as equal partners in the design and delivery of workplace literacy programs. This guide stresses the critical importance of their involvement in all aspects of program development from initial planning to the eventual delivery and evaluation of training. The following outlines the general topics conveyed through each of the chapters in this guide:

Chapter 1: Literacy in the Workplace: A Growing Dilemma. Chapter 1 provides an overview of literacy in the workplace highlighting current challenges now facing Minnesota and the nation in addressing worker needs for basic skills enhancement on the job. Collaboration is also emphasized as an expedient and cost effective means of developing and making available high quality and comprehensive training programs.

Chapter 2: Establishing the Foundation for Collaboration. This chapter describes the key roles and functions of unions, business, ABE programs, and workers in establishing workplace literacy training programs. Procedures for establishing a collaborative workplace literacy planning team are discussed.

Chapter 3: Assessing Workplace Literacy Training Needs. This chapter presents specific steps and procedures for conducting a worker-centered workplace literacy training needs assessment. Informal and formal procedures are introduced. Job and task analysis, basic skill assessments, and other techniques are suggested as useful tools in analyzing workplace literacy training needs. Special emphasis is placed on the role of workers in assisting in conducting the needs assessment process.

Chapter 4: Designing Workplace Literacy Training Programs: Essential Concepts and Strategies. This chapter provides a general overview of program, curricular, and instructional design concepts and strategies. Specific action steps are suggested and a broad framework for organizing training is discussed.

Chapter 5: Assuring Meaningful Worker Participation. Several strategies for encouraging worker participation are discussed in this chapter. Here, consideration is given to the types of incentives that should be developed to maximize worker interest and motivation in participating in workplace literacy training programs.

The appendices in this guide also contain useful resource information. We offer users of this guide information on how to contact Minnesota unions, ABE programs, and other national and state organizations that address literacy education. Included also are literature references and resources on workplace literacy training. We encourage professionals to consult these and other resources and publications when considering the development of workplace literacy training programs.

This guide is intended for any group or organization interested in establishing workplace literacy training programs. This includes union officials, employers, ABE professionals, and other interested groups and organizations. The guide, for example, has direct applicability within Minnesota's ABE programs, technical colleges, and community colleges. These postsecondary education programs routinely work with businesses and labor organizations in the development of specialized training programs. Other organizations, such as the Minnesota Department of Jobs and Training, Private Industry Councils, and local Chambers of Commerce should also find the information contained in the guide useful.

Signals of an Emerging Dilemma

Several public and private sources including the U.S. Departments of Labor and Education, Business Council for Effective Literacy, and the AFL-CIO's Human Resources Development Institute have identified a number of scenarios that aptly characterize the current workplace literacy dilemma.

> A Minnesota firm, wishing to upgrade its employees' skills so that they could run its new high tech manufacturing equipment, was prepared to offer courses in basic electricity, blueprint reading, and the like. Employees, however, expressed more interest in courses dealing with reading, writing, and basic math. What most surprised management about this was the fact that 98% of its employees were high school graduates.
>
> In a large urban bank, managers discovered that a major reason for low productivity among secretarial staff was that 70% of the dictated correspondence had to be redone at least once because of spelling and grammatical errors. In another instance, a teller cashed a rebate check, even though NON-NEGOTIABLE was printed clearly across it. When asked to explain, he admitted that he didn't know what the word meant.
>
> In its first major recruitment effort in more than a decade, the New York Telephone Company met with results that surprised few labor experts: 84% of the applicants from New York City failed the entry level examinations. Only 3,619 of the 22,880 applicants passed the examinations intended to test skills including vocabulary, number relationships, and problem solving for jobs ranging from telephone operator to service representative.
>
> An insurance company authorized a payment for $22.00, but the check that was actually issued was for $2,200. The clerk handling the claim did not understand the significance of the decimal point.
>
> A major Minnesota trucking company was amazed to learn that as many as one out of five of its drivers were unable to pass the new written test for the commercial driver's license exam on the first go around. Company officials had to eventually address the problem through a special literacy training program established by management and Teamsters union officials.
>
> In a major Minnesota warehouse, management invested heavily in computer equipment to regulate inventories and shipment schedules. Unfortunately, the workers were unable to enter numbers accurately, which literally destroyed inventory records and resulted in shipment errors and delays costing the company tens of thousands of dollars. Correcting the errors cost several thousand additional dollars, wiping out profits the company projected from installing the new computer systems in the first place.

What Do We Mean by Workplace Literacy?

On July 25, 1991, President Bush signed into law the National Literacy Act of 1991 (Public Law 102-73). The National Literacy Act of 1991 is intended to improve the literacy and basic skill level of adults by coordinating, integrating, and investing in adult and family literacy programs at the federal, state, and local levels. The Act defines literacy as "an individual's ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential" (P.L. 102-73). According to the Business Council of Effective Literacy (1991) this definition is a major advancement over prior legislative definitions and could be a major force in helping to shape effective literacy programs at the state and national levels. The Act emphasizes the importance of literacy in the context of an individual's job, citizenship, and family life.

KEY FEATURES OF WORKPLACE LITERACY PROGRAMS

- Workers, union representatives, employers, and adult education professionals are all involved in the planning and designing of training programs.
- Needs assessments focus specifically on the nature of work demands and requirements placed on employees both now and in the future.
- Instruction in basic skills uses the actual content of specific jobs.
- Instruction in reading, mathematics, and other basic skills are directly related to workplace needs and what employees are expected to do and perform on a daily basis.
- Workplace literacy training builds on the workers prior knowledge as a starting point for teaching new concepts and skills.
- Curriculum is customized and usually developed for the explicit purposes of addressing the literacy needs of specific jobs that must be done.
- Commercially produced literacy curricula and materials are seldom relied upon as the sole means of instructing workers.
- Materials used by workers on the job become the focal point for instruction.
- Workers receive regular feedback on their progress during training and varied methods are used by instructors to ensure that all workers maximize benefits from participating in workplace literacy training.

Workplace literacy is much more than just knowing how to read or compute mathematical problems. These are basic skills that workers apply directly in their jobs, i.e., reading memos, computing inventory lists, writing letters, communicating directions to other workers, etc. Workplace literacy, however, is much more than just possessing adequate basic skills for a specific job. Workers today are experiencing many changes on the job and/or find themselves changing jobs altogether. Because of these and other factors, workplace literacy programs must often address a wide range of worker literacy needs, including their basic academic skills, their job-related skills, as well as their personal and family life skills. For the purposes of this guide, our discussion will focus on the development of training programs designed to enhance worker basic skills that are directly associated with job task performance. This approach is sometimes termed "functional context literacy" (Sticht, 1987).

"Functional context literacy" emphasizes teaching adults literacy skills using materials that are relevant to workers employability. Here, workers are assessed and trained with material they actually have to read, problems they actually have to calculate and solve, and so on. Also important is that employers come to see that the training is relevant to the company's needs for skilled and productive workers. Assuring that workers, union representatives, and employers mutually perceive the relevance of the training program is of particular importance when attempting to develop workplace literacy training programs.

How Widespread is Illiteracy Among Today's Workers?

There are mixed reports and opinions regarding the answer to this question. Workplace literacy has rapidly become a national concern. Several recent reports have cited growing literacy problems among high school students and current workers. According to a recent review of research on literacy levels of adults in this country, current estimates range from 4 million to 27 million to 60 million. Part of the difficulty in determining exact or precise illiteracy rates is due to the differing definitions or standards used in classifying an individual as literate or illiterate (Human Resources Development Institute, 1990). Presently, there are no set standards or criteria for defining literacy and caution must be applied when reviewing national or state level estimates of illiteracy. Available estimates do, however, illustrate the significance of the problem in Minnesota and nationwide.

Recently, the inability of a large portion of Americans to meet the new literacy requirements of industry is reported in a congressional research service review of literacy estimates from 1975, 1980, 1982, and 1985 (Irwin, 1988). The report revealed that approximately 27 million adults, one out of every five, are functionally illiterate in America today, and another 47 million are marginally illiterate. This means that these adults cannot read and write well enough to function in many of the basic requirements of every day living and working. These are also individuals who likely experience difficulties on the job when new requirements and demands are placed on them.

Attempts to identify the scope of adult illiteracy in Minnesota have also been undertaken. For instance, the Minnesota Interagency Adult Literacy Policy Group concluded a year long study of the state's adult education needs and priorities in 1988. The policy group estimated that 355,000 Minnesotans between the ages of 18 and 64 had not yet completed high school and another 200,000 Minnesotans who had graduated from high school were estimated to have basic skills below the eighth grade level. Two hundred and ten thousand (210,000) of these adults were recommended as primary candidates for adult education programs. Minnesota's problem is further compounded when we factor in all non-English speaking persons and adults with specific learning disabilities who likewise experience job related literacy difficulties.

Repeatedly, national and Minnesota studies report common concerns about the basic skill levels of today's workers. For example, the importance of basic skills for employment was stressed by a national survey of business, labor organizations, and public education programs conducted by the Center for Public Resources in the mid-1980s. This study found the following problems to be most common in the workplace:

- business and industry are finding serious skill deficiencies among high school graduates and nongraduates coming into the workforce.

- These skill deficiencies pervade all job categories, all types of basic skills, and all types of companies.

- The deficiencies affect not only employee performance in entry level positions but also employees' qualifications for job advancement.

- A lack of communication exists between industry and school systems on the level of basic skills needed in contemporary jobs and on the seriousness of the deficiencies that exist.

- Rarely does preventive cooperation among industry, labor organizations, and schools deal with basic skill deficiencies in an effective way. Most school systems continue to make available limited general literacy programs which often ignore the employment needs of individuals participating in these programs. Many companies as well as unions do not deal with the problem at all.

- Some companies do offer remedial instruction in basic skills for their employees, however, the vast majority continue to view such training as the responsibility of schools or other community programs.

These common problems underscore the broad and complex nature of literacy in the workplace. Clearly, literacy encompasses many different kinds of skills and how they are applied in the workplace. Basic skills deficiencies are not merely a problem found among new job entrants but also noted among workers with many years of job experience. It is a complex issue which has recently surfaced due to a variety of factors and reasons.

What are the Primary Causes of Illiteracy in the Workplace?

During the 1980s, corporate leaders and policymakers became convinced that the capacity of the United States to compete in the global economy was diminishing. Major business organizations and corporate task forces were quick to blame public schools for their failure to equip young people with the basic skills necessary to compete in today's labor market. While American high schools must accept part of the blame, there are several other factors that are presently influencing this situation.

One of the biggest reasons is that the workplace itself is rapidly changing and placing more demands on workers than it ever has before. A recent U.S. Department of Labor and Education report: The Bottom Line: Basic Skills in the Workplace (1988) notes, that new technology has changed the nature of work - created new jobs and altered others - and, in many cases, has revealed basic skills problems among experienced, older workers where none were known to exist previously. With the advance of new technologies, workers are expected to know and do more. This typically requires higher levels of reading, writing, math, reasoning, problem solving, and other basic skills.

Technology has also improved our access to information and knowledge. Increasingly, workers are required to handle additional amounts of information. Product and service specialization, resulting largely from competition in the marketplace, has also placed increased demands on workers. For example, an auto mechanic just fifteen years ago would be required to order parts from catalogs containing several hundred pages; today this same auto mechanic must now order parts from literally volumes of catalogues containing several thousand pages of parts indexing. Similar conditions are found in many other industries. Such changes are primarily due to increased specialization and uses of technology in industry overall.

According to the U.S. Department of Labor report, Workforce 2000: Work and Workers for the 21st Century, between now and the year 2000, for the first time in history:

- 87% of new jobs will require a high school diploma.
- 52% of new jobs will require some post-secondary education.
- 30% of new jobs will require a college degree.
- Only 27% of all new jobs will fall into low skill categories, compared to 40% of jobs today.
- Jobs that are in the middle of the skill distribution today will be the least skilled occupations of the future. Tomorrow's workers will be required to possess vastly higher levels of basic skills compared to those now required in the workplace. By the end of the decade, people at the lowest skill levels will be able to perform only 4% the of new jobs created.

OBSERVATIONS ON READING AND WRITING IN THE WORKPLACE

In a study conducted several years ago by Mikulecky and Diehl (1980) on the use of reading and writing skills in the workplace, a number of important observations were made. The implications of their findings are important to individuals responsible for designing workplace literacy training programs. Even though the study was conducted over a decade ago, basic skills such as reading and writing have become increasingly more important in the performance of daily work routines in business and industry over past ten years.

Did you know that...

- reading on a daily basis is now a requirement of almost every job. In this study that included workers in a wide range of occupational areas from fast food workers to machine operators to professionals to vice presidents of large companies - 99% of all workers spend some time reading each day.
- it is estimated that 70% of the reading material now used by workers in their jobs is between the 9th and 12th grade reading level, and that about 15% is above that. Even entry level service workers today are many times expected to have a 9th grade reading level or above.
- average time spent reading across occupations in this study was 113 minutes or about two hours each day.
- literacy tasks done on the job tend to be highly repetitive. That is, workers tend to read identical materials to do identical tasks daily.
- reading tasks tend to be more of a "reading to do" type rather than a "reading to learn and acquire new knowledge" type.
- most reading is typified by rapid search strategies for locating information, like using reference catalogues, locating merchandise, ordering materials, etc., rather than reading to remember.
- workers today must confront a wide range of reading materials. The study found, however, that most reading materials were only one to three pages in length.
- writing tasks on the job tend to be relatively brief. Like filling out forms, writing short memos or letters, or writing instructions for other workers to follow.

Adapted from Mikulecky, L., & Diehl, W. (1980). Job literacy: A study of literacy demands, attitudes, and strategies in a cross section of occupations. Bloomington: Indiana University.

Another related cause of the literacy dilemma in the workplace is the changing demographic make-up of the available labor pool. During the early part of the 1990s, leading experts predict severe labor shortages in several occupational areas through the year 2000 and beyond. For instance, the Hudson Institute (1988) analysis projects that:

- The decline in population growth will result in an older workforce with the average age of workers increasing from 36 to 39 by the year 2000.
- The number of young workers will decline both relatively and absolutely, with workers aged 16-34 accounting for half the workforce in 1985 but declining to less than 40% in the year 2000.
- 80% of new entrants into the workforce will be women, minorities, and immigrants.

The Bureau of Business Practice (1990) reports that faced with the dwindling labor pool, many companies have opted to try to attract minorities, immigrants, and other once largely ignored groups into the labor market. However, in doing so they have come face to face with the literacy problem: these people, who may lack the basic reading, writing, and math skills, are now needed for jobs where they are expected to demonstrate these skills. According the Hudson Institute (1988) these changes mean that:

- An older, less adaptable workforce will face a job market that requires increasingly flexible skills, with many workers changing jobs five or six times during their work lives.
- Traditionally less skilled groups and under-utilized population groups (women, minorities, and immigrants) will be needed to fill available jobs.
- As a consequence of smaller growth in the labor force and a diminishing pool of qualified workers, employers may face serious skill shortages not expected since World War II.

Faced with this situation, industry will be required to expand its horizons to develop training programs that address not only job content, knowledge, and technical skills, but also basic skills development among new and current workers. These trends, projected by the Hudson Institute and other nationally-based research groups strongly compel business leaders to reach out to schools and labor organizations to find solutions to the growing literacy problem in the workplace. To meet the growing demands for a literate workforce in the future, union leaders, employers, and school professionals must all work closely together to devise a strategic approach for addressing the workplace literacy needs of workers.

Why is Collaboration so Essential?

The scope of adult illiteracy is such that no one sector - public or private - can solve it alone. It will take a partnership between public and private entities to impact the problem fully. We must recognize that:

Schools alone will not solve the basic skills problem. The recent publication Jump Start: The Federal Role in Adult Literacy (1989) exclaims that we must realize that the 20 million-plus who make up the current pool of new workers who are out of school are unlikely to return to develop new skills. This group comprises approximately 75% of the available labor pool for the next 15 years or so. A large number of these adults may be resistant to traditional classroom learning approaches and fail to perceive the relevance and importance of investing the time required to further develop their basic skills. Some may even fail to see the connection between the development of basic skills and their present and future employment outlook and job security.

Establishing a link between education and the workplace itself is a natural and important means of not only recruiting adults into the learning process but also demonstrating the relevance of basic skills development to workers within the context of their current work situation. ABE professionals offer the needed expertise in literacy curricular design and instruction, however, strong support from union officials, employers, and workers is needed to initiate such programs and encourage workers to participate.

We must also realize that our existing adult education system does not have the capacity or resources to respond adequately to the level of changing skill needs in the workplace. Adult education in Minnesota, as in other states, is seriously underfunded. Currently, programs have only a fraction of the resources necessary to serve all adults who require basic skills assistance in relation to their employment.

Business alone cannot solve the basic skills problem. Of the estimated $30 billion spent on corporate training each year, only a small fraction is devoted to basic skills development. Business is often inexperienced and in many ways unaware of basic skill requirements that are imposed on workers when job changes are made. Further, industry has also had the benefit of being able to draw from a readily available and large labor pool when ill-equipped workers were let go from their jobs. By all indications, business leaders are currently in a quandary about how to handle the problem.

Some large companies such as AT & T, Ford Motor Company, General Motors, Control Data, Onan, Polaroid, Aetna, and others have developed exemplary training programs. For example, General Motors operates a $200 million a year program for its 305,000 UAW members. The program is cooperatively designed and managed by workers, union representatives and company officials. There are many other excellent examples of training programs that have been jointly developed with organized labor, worker representative, and adult education programs.

DISPELLING COMMON EMPLOYER ARGUMENTS AGAINST ESTABLISHING A WORKPLACE LITERACY TRAINING PROGRAM

1. **"I hire only qualified applicants to begin with so why should I have any concerns?"**

Your personnel department may do all it can to hire the best qualified applicants, however, today's workers may not come equipped with all the basic skills necessary to be the most productive worker. The baby boom of but a few short years ago that produced a more than ample supply of new workers for America's industries has gone bust and the available labor pool is simply much smaller. More and more businesses will need to search out workers with highly varied skill and ability levels. We speak a lot today about diversity in the workplace. Part of this diversity will include individuals with low skills who will need training in order to become productive employees.

2. **"Well, if we have problems we'll simply dismiss any employee who doesn't have the necessary skills to be productive."**

If you fire the employee who isn't productive due to a lack of basic skills, you may only end up replacing the individual with someone with even lower skills. However, if you train the employee who has low basic skills, you will develop a worker who will not only be more productive but probably better motivated. You will also avoid needless legal battles when employees feel they have been discriminated under Title VII of the Civil Rights Act of 1964.

3. **"Schools should have responsibility for teaching basic skills, not businesses."**

Granted, schools must do a better job in preparing young people before they complete their formal education. Today there are a number of reforms intending to improve public education's capacity to develop adequate basic skill levels among all young people leaving school. This will take considerable time, however. The immediate question is what are we going to do in the meantime? Currently, three-quarters of the young people who will be working in the year 2000 are already out of school. Most of them are in the workforce and it is there that they and employers will be confronted with low basic skills. The existing adult education system is small by comparison and simply cannot respond to all the changing skill needs of workers in the workplace. Employers, in cooperation with unions, workers, and adult education programs must form partnerships to respond to the basic skills needs of present workers.

4. **"Our business only require people with low skills, it's just not necessary for new workers to know how to read and write well."**

Jobs today are becoming more complex rather than less complex. Increasing complexity means that workers will need higher and higher basic skill levels to perform their jobs. Even entry level positions are requiring that new workers come equipped with higher reading, writing, computational, communications, problem solving and reasoning abilities.

5. **"If I give them training, they'll only leave me and go to another company."**

This may happen, but what's keeping them there now? If you give them the training and improve the chances of being promoted in your business, don't you think that they may feel more loyalty and be better motivated than they are now? Also think about the productivity lost when workers can't adequately perform their jobs. Basic skills training is increasingly becoming a bottom line issue.

6. **"I don't want to embarrass my employees by telling them that they need to improve the basic skills."**

Then don't! Just get them involved in discussions about your concerns and begin the process of planning a program. After all, most workers know how weak their skills are and one of their fears is that you will find out and fire them. Show them that you want to see them improve their basic skills because they are valued employees in the company. Assure them that the workplace literacy program is not in any way intended to dismiss workers from their current positions. Make sure you present to them opportunities to become involved in all levels of program planning and implementation.

7. **"Training costs a lot of money and time."**

Yes, training costs some money and it costs you some time. But what does it cost to replace a worker every time they voluntarily leave or you dismiss them? If you had a chance to buy a new machine that would make your company more productive, would you buy it? Training is an investment in the future. By getting union representatives, workers, and adult education professionals involved, opportunities to have each partner share in the total cost of workplace literacy training can be created. There are good reasons why unions, workers, and adult education professionals want to get involved with you. Each has a stake in ensuring that your company has a productive workforce.

Adapted, in part, from What Works! Guidelines for Workplace Skills Enhancement Programs, South Carolina Department of Education, 1988.

The future role that business plays will, in large part, depend upon how the problem of illiteracy bears down on corporate profit margins. All trends indicate, however, that industry will need to assume a more significant role in the development of workplace literacy training programs. The time appears particularly conducive to establishing meaningful dialogues with employers to discuss collaborative approaches in planning and implementing these programs. Inroads are possible, indeed critical, but union and educational leadership is needed to promote such training.

Unions alone will not solve the basic skills problem.

Unions in the United States have long been concerned with the skill development of their members. In fact, many of our unions developed literacy programs for the waves of immigrants that entered this country at the turn of the century. These early literacy programs were developed for citizenship and family reasons. Over the years, unions have remained steadfast in their interests to promote the job security and career advancement of their members through education and training.

There are many excellent examples of unions' involvement in literacy education today. For instance, the Minnesota Teamsters Service Bureau is currently assisting the state's trucking industry in assisting workers in overcoming basic skills difficulties in passing the new commercial vehicle licensing exam now required by the federal government. UAW Chrysler offers 14 separate programs to 75,000 workers relating to interpersonal, job-related, and basic skills education. Similar programs are in operation at Ford and General Motors. Other unions such as the United Steel Workers of America, Communications Workers of America, National Union of Hospital and Health Care employees, and the Amalgamated Service and Allied Industries Joint Board have developed similar programs.

Why Emphasize Union Participation?

As the preceding section noted, the American labor movement has always placed a high priority on enhancing the skills of their members. Over the years, unions led their members through the transition from an economy based on small craft shops to the complex industrial base of the 20th century (Human Resources Development Institute, 1990). Today, the pace of change in the workplace continues to accelerate requiring unions to constantly review and revise their plans for serving members. During the present decade and beyond, training will continue to be a major part of union's broad agenda and goals.

We believe union involvement is essential for several reasons. First, it is well understood that unions are expected to have the best interests of workers as their primary concern. When management suggests an initiative to improve worker skills, this may be viewed as threatening to many workers. Workers learning of a new training program proposal by management may respond with apprehension and suspicion, believing that the intent is that of eliminating workers. In such an emotional atmosphere, the union can play a major role, supporting the assertion that what is good for the employer really is also good for the worker. When the employer, union, and workers form a partnership to discuss literacy needs, tensions are reduced and workers become more amenable to proposed training initiatives.

WHY EMPHASIZE THE INVOLVEMENT OF UNIONS IN WORKPLACE LITERACY TRAINING

The Human Resources Development Institute of the AFL-CIO in Washington, D.C. has taken an active role in articulating the role of unions and union members in establishing workplace literacy training programs. Their perspective regarding union involvement in workplace literacy is conveyed below.

- Workers go to their union when they need help. Naturally, they look to unions for advice and assistance on job training and career advancement matters.
- Union members know the union represents their interests unconditionally. That representation is guaranteed by contract and law. At the same time, they also know that their employer will be evaluating them for their job performance and productivity. Members will be more comfortable in an education or training program that is not solely identified with their supervisors or employers.
- Workers want their employers to judge them solely by their work performance. Having an education program sponsored only by the employer can confuse that evaluation process. Union involvement is warranted on this point alone.
- Unions know their members and communicate with them well. Members know that they can freely talk with their union about their educational needs and shortcomings.
- Unions know and understand changes that are occur in work sites and worker job requirements.
- Unions know how to involve workers - their members - in designing the kinds of programs they want and need.
- Union members will be reluctant to participate in a program without their unions' endorsement.

Second, the union and its organizational structure provides a new and different path by which an educational campaign, its rationale, and how it will operate, can be communicated to union members. Union representatives involved in the initial phases of assessing and identifying workplace literacy needs among workers helps, to build credibility for the program. Further, when both the employer and the union come with the same message, e.g., workplace literacy training is important, it is much more likely that workers will positively respond to the message and support literacy training initiatives.

Third, the single most important factor that determines the success of a literacy program is the motivation of the adult learner. Many times, there is no obvious or apparent advantage or incentive for participating, e.g., no assurances of job retention, salary increases, or promotion following training. Union involvement from the onset can help to dispel worker concerns regarding their involvement in basic skills programs. Unions can also take an active role in assuring that the worker's job retention, salary increases, and promotions are associated with their involvement and participation in literacy programs. Ensuring that unions have an equal partnership in the design and implementation of workplace literacy training programs can go a long way in achieving successful results and benefits for workers. This message regarding the essential role of unions and their members as partners in the development of workplace literacy training programs is conveyed throughout this guide.

Summary

This chapter has attempted to identify and outline the major concerns associated with illiteracy in the workplace. One message stands out loud and clear -- the workplace is rapidly changing, requiring workers to demonstrate higher levels of technical as well as basic skills. Illiteracy in the workplace is fast becoming recognized as one of the most pressing issues confronting industry and labor organizations today. To effectively address this problem head on, unions, employers, ABE professionals, and workers must collectively share in the solution. Chapter 2 lays the foundation for collaboration by examining strategies for establishing partnerships between unions, management, ABE programs, and workers in initiating workplace literacy training programs.

CHAPTER 2

ESTABLISHING THE FOUNDATION FOR COLLABORATION

In today's workplace, changes in technology and an accelerated information base now coming available in almost every job necessitate that unions take an active stand in assisting workers to develop needed skills. Many times these changes are threatening to workers in terms of their job security and opportunities for career advancement. Improving the workplace literacy of our workforce is a key challenge for the 1990s and beyond. Part of this challenge is to forge the types of collaborative relationships necessary to satisfactorily address the new literacy requirements in today's marketplace. Unions, workers, employers, and adult education professionals must join forces to plan for change and reduce or eliminate illiteracy and its harmful effects.

Harold Yates, President, Minnesota Teamsters Joint Council #32

The primary elements of a sound foundation for collaboration between unions, management, ABE programs, and workers include a mutual understanding of an identified or emerging need for workplace literacy training, willingness to explore this concern openly with others, and shared goals among participants, i.e., improving worker skills, productivity, increasing profits, etc. The partnership typically begins with management's expressed concerns over declines in worker productivity and company profits. Union representatives are generally next informed of these problems. It is at this point that unions have an opportunity to assume a leadership role and advocate for workers.

No matter who assumes the primary lead in initiating or sponsoring the actual training program, support and collaboration from workers is also strongly advised. Worker involvement from the very beginning helps to promote broad-based support for the program and ensures that workers quickly come to understand management's interests and intent for the program. ABE professionals should also be viewed as key partners and involved early. These professionals can offer valuable special expertise essential in the design of quality workplace literacy training programs.

Identifying the Key Partners

The initial step in forming a workplace literacy partnership is to identify the key partners. Described here are several strategies for identifying these partners.

Labor organizations. Literally hundreds of local union offices are situated throughout Minnesota. Major unions such as the Teamsters, AFL-CIO, United Auto Workers, and others currently represent tens of thousands of Minnesota workers. Individuals interested in identifying labor organizations in their communities should consult local telephone directories (see labor organizations or unions for available listings). Again, ABE professionals are encouraged to identify local union offices and initiate contacts. An important aspect of laying a sound foundation for collaboration is to make sure unions (as well as employers) fully understand the nature of your programs and the important role you can assume in helping to develop workplace literacy training programs.

Minnesota businesses and industries. There are a variety of ways to identify prospective employers within local communities. Local Chambers of Commerce and business associations and organizations often publish directories on local businesses. Interested ABE professionals should consult these directories and become familiar with local businesses. Business representatives are also many times involved on local education advisory councils and boards. Obtaining lists of advisory council and board members from local agencies and organizations may prove to be a useful strategy when attempting to identify and contact employers. Attending job fairs or college career recruitment events provide yet another opportunity to become familiar with businesses in your area. Many times unions also participate in these events. The primary point here is to encourage ABE programs to actively reach out and begin formal dialogues with local businesses to promote their role and involvement in developing workplace literacy training programs.

Adult Basic Education (ABE) programs. Adult Basic Education (ABE) is administered through the Minnesota Department of Education. At the local level, ABE programs are administered through the community education programs of local school districts. A variety of programs are typically offered including basic skills (literacy) instruction, GED preparation, English as a second language (ESL), adult high school diploma, and "brush up" courses for adults with high school diplomas. Individuals interested in information on these programs should consult with community education departments of the school district located in your community. A listing of Minnesota ABE programs is found in Appendix A.

Workers as partners. Determining worker representation on collaborative workplace literacy planning teams may involve several levels of decision making. Most often it may be assumed that a union steward who is the elected representative of workers should customarily participate in planning. Other times, it may be advantageous to include other workers from differing divisions or departments within the business or industry setting. Union officials, in cooperation with employers, will usually find it advisable to mutually determine specific levels of worker participation.

In addition to these primary partners, there are also other organizations and agencies at the state and community levels that are sometimes enlisted to participate in planning and developing workplace literacy training programs. Identified here are a several of these organizations:

- Minnesota Department of Jobs and Training, including Job Service, JTPA, Dislocated Worker Programs, and Rehabilitation Services
- Private Industry Councils
- Minnesota's Technical Colleges
- Minnesota's Community Colleges
- Local Chambers of Commerce
- Minnesota Literacy Training Network

- Minnesota Learning Disabilities Association
- Minnesota Refugee Educational Programs

Listings of these agencies and other national, state, and local organizations are found in Appendix B. The reader is encouraged to consult these listings for additional contact information.

The Workplace Literacy Planning Team

The first step is to ensure that planning team participants agree on the general principles, anticipated benefits, and expected outcomes of workplace literacy training. To ensure optimal design and implementation of workplace literacy training programs, each partner - unions, employers, educational professionals, and workers themselves - must have a clear understanding of the benefits and outcomes of training. One of the first steps, then, is to focus the planning team's attention on the key outcomes that the program will be designed to achieve.

As part of the process in preparing this guide, the Minnesota Teamsters Service Bureau convened a planning group composed of union officials, business representatives, and ABE professionals to identify the broad benefits or outcomes of workplace literacy training programs. Participants in this process were requested to address the fundamental question of how workplace literacy training can directly or indirectly benefit workers, unions, employers, and ABE programs. The following list contains the key benefits or outcomes identified through this process. The generic list of outcomes can be used to stimulate discussion during initial planning team meetings in the identification of key training program goals and outcomes.

Worker Benefits and Outcomes

- Improved job retention and security for workers.

- Improved opportunities to qualify for promotions and make career advancements.

- Workers become better able to learn and acquire new knowledge and information required in relation to their jobs.

- Workers become better able to learn a variety of new skills that may transfer to new kinds of work and other job opportunities within the company.

- Workers are able to perform their jobs more safely.

- Workers experience higher levels of job satisfaction when they feel they are competently performing their duties.

- Training improves worker self concept and self esteem.

- Improved communications and relationships with employers occur through involvement in the planning process itself.

Union Benefits and Outcomes

- Unions see it as a way of protecting members' job retention and employment security.
- Training is a means of preventing needless layoffs of workers due to basic skills deficits.
- Unions feel that it is increasing its members' job advancement opportunities with their employer.
- Relationships with management are strengthened.
- Unions come to understand more fully the basic skill development needs of workers as well as their needs for other types of support services, i.e., counseling, child care, etc.

Employer Benefits and Outcomes

- Improves worker productivity and efficiency.
- Increases the capacity of workers to perform a broader range of job tasks.
- Improves the safety practices of workers, thus reducing liability and health insurance claims.
- Promotes a positive image of the company in the community.
- Gives workers greater opportunities for career development and advancement.
- Reduces needless job loss and retention problems.
- Improves the job satisfaction of workers which promotes a positive organizational climate.

Education Benefits and Outcomes

- Enhances the relevance of education programs from the viewpoint of industry, workers, and unions.
- New groups of students are identified to which training can be provided.
- Promotes positive public relations with community members.

- Broadens the capacity of educational programs to address a wider range of training needs, i.e., literacy and job skill development.

- Can help industry to reduce costs associated with contracting independent training consultants.

While not intended to represent an exhaustive listing of the potential benefits and outcomes of the workplace literacy training, the list does identify several of the positive outcomes and benefits associated with such training. Once the broad outcomes and benefits of workplace literacy education are mutually agreed upon, the planning team next turns to the task of developing a plan of action for assessing the workplace literacy needs of workers. To help facilitate effective team planning it is important at the onset to establish general ground rules for participation.

Establishing Ground Rules for Participation

It is likely that planning team members will hold differing views on how to proceed with planning the training program. Reaching consensus among team members on the specific actions and steps to be taken is sometimes difficult. Complete consensus may never be achieved, however general agreement or understanding of the respective roles of unions, employers, workers, and ABE professionals is essential. This can be accomplished by developing a basic set of ground rules for working together. Many times a joint letter of understanding or written cooperative agreement is developed outlining the rules and conditions for working together. A sample cooperative agreement is illustrated in Figure 2.1. The agreement first identifies and lists a general set of conditions for guiding the overall planning process and training program design. The cooperative agreement also lists the specific role and responsibility of each planning team member.

Developing the Plan for Assessing Worker Needs for Training

The planning team will need to address several key questions prior to actually conducting the workplace literacy needs assessment. The development of a plan for identifying worker needs and goals helps to keep program planners on course when assessing training needs. The needs assessment plan usually addresses the following questions:

What procedures will be used for assessing workers' learning needs?

The planning team needs to review and decide on what needs assessment procedures will be used. For example, will observations, job analyses, surveys, or questionnaires be principally used for assessing workplace literacy training needs? The reader is referred to Chapter 3 for specific information on these procedures.

Figure 2.1
ESTABLISHING A COLLABORATIVE WORKPLACE LITERACY PROGRAM

Sample Cooperative Agreement

Recognizing the importance of workplace literacy in this company, we in collaboration with Union Local 19 officials, our employees, and local adult basic education representatives propose a partnership to upgrade employee basic skills to address present and future needs for changing technology, specialization and job content, and increased production and productivity. This partnership shall also strive to ensure that employee basic skills training for the workplace provides for increased job security, retention, satisfaction and improved opportunities for career advancement. The purposes of this cooperative agreement are to set forth the conditions and general understandings relative to the development of a workplace literacy training program at this company. The following describes the general terms and conditions guiding the actions and decisions of the collaborating partners and specific responsibilities of each member in the establishment of the workplace literacy training program.

General Conditions and Terms of the Partnership

1. A workplace literacy planning team comprised of an equal number of union and non-union representatives will be formed to advise on needs assessment procedures, instructional program design, hiring of instructors and consultants, determining worker conditions for participation, marketing the program to workers, and evaluation of the overall workplace literacy training program. The planning team will include a representative of a local adult education program who the company, union, and workers mutually perceive to be the best organization to facilitate the design and implementation of the training program. The planning team shall also mutually discuss and determine the budgetary requirements for establishing the training program.

2. The workplace literacy training program will be available to all employees within targeted departments and divisions where training will be established, on a voluntary basis. We concur that employee enrollment or withdrawal will be totally at the individual employee's option and no compensation of any kind will be provided for class attendance. Establishment of this program will have no impact on the company's current or planned training activities for which employees are scheduled by management and receive full compensation.

3. Employees electing not to utilize the training program or electing to voluntary withdraw from programs offered will not be penalized.

4. An employee's enrollment and his or her progress with respect to any program or course of study will be strictly confidential. Enrollees may, however, be required to participate in testing or other evaluative measures. The results of these evaluations, while not identifying individuals, may be used to appraise program effectiveness.

5. Either party may withdraw its support and endorsement of this program upon two weeks' written notice.

This cooperative agreement also sets forth the specific responsibilities of each member in this partnership. The following provides minimum expected actions and support from each member. Key responsibilities may be added to or eliminated based upon negotiated planning team decisions and agreement of the party or parties affected.

The Company Agrees to:

1. Allow the workplace literacy training program to be conducted at the work site and make available adequate and comfortable space needed for the program.
2. Provide fiscal resources sufficient (in part or in whole) necessary to contract outside adult education personnel or consultants.
3. Ensure that all levels of management and supervision concur with the need for the program and support its implementation across targeted departments and divisions.
4. Recruit employees for participation.
5. Purchase instructional materials for employees enrolled as needed.
6. Provide appropriate incentives to encourage full worker participation in the workplace literacy training program, i.e., release time during regular working hours, financial incentives for participating in training during off hours, etc.
7. Provide assurances to workers that the purpose of the training program is not to screen out or dismiss employees.
8. Stipulate that all employees who are eligible to participate do so regardless of gender, race, color, creed, age, national origin, or handicapping condition.

Union Officials Agree to:

1. Actively promote the program with workers at the company to ensure their full participation.
2. Conduct regular meetings with workers to gauge their satisfaction and response to the program.
3. Maintain close communication with company officials to discuss worker progress and program impact.
4. Help to support worker participation in programs by making available needed support services, i.e., counseling, child care services, special tutoring (as needed on an individual basis), etc.
5. Participate in all levels of workplace literacy training program evaluation.

Workers Agree to:

1. Promote the training among other workers in the company.
2. Openly participate in workplace literacy training needs assessments by providing specific information on their jobs to adult education professionals or consultants.
3. Help to determine the most convenient times, locations, as well as incentives to promote worker participation in the training program.
4. Convey information to union and company officials regarding their needs for support services when involved in training.
5. Provide feedback on the training program to company, union, and adult education professionals that could be used in modifying and improving the overall workplace literacy training program.
6. Agree to attend the training program regularly and make a sincere commitment to maximizing this new learning opportunity.

The Adult Education Program Agrees to:

1. Assess the needs of workers for literacy training by fully involving workers in the needs assessment process.
2. Design the workplace literacy instructional program including materials, varied instructional approaches, methods for ongoing assessment and worker feedback, and methods of evaluating the overall program.
3. Hire or contract the most qualified instructors to implement the training program.
4. Customize instruction to address the unique literacy needs of each worker.
5. Maintain close communication with company officials, and union and worker representatives to obtain feedback on the effectiveness of the program.
6. Modify and improve the program as necessary for individual workers to ensure maximum benefits from the program.
7. Evaluate the progress of each worker enrolled in the workplace literacy training program and provide feedback to them individually.

Signatures

Company President or Training Director

Worker Representative

Local Union President

Director of Adult Education Program

Adapted, in part, from Sarmiento, A., & Kay, A. (1990). Worker centered learning: A union guide to workplace literacy. Washington, DC: AFL-CIO Human Resources Development Institute.

Who will be responsible for conducting the workplace literacy needs assessment?

Will the partners of the planning team primarily assess employees' needs for training or will employees themselves participate in the process of determining their own needs? Will the planning team rely on an outside consultant for conducting the needs assessment or will ABE professionals be called on to assist in this activity?

What procedures will be used to explain the program to workers throughout the company?

Will management or unions inform workers or will workers involved on the planning team assume this responsibility? What actions should employers and unions undertake to ensure workers that the needs assessment process is not simply a means of terminating lower skilled workers?

How many employees need the training?

Are there any preliminary estimates on the numbers of workers within the company who potentially should be involved in the workplace literacy training program? Are groups of employees already targeted for training ahead of time and what is known about the basic skill levels of these workers? What are the resource constraints of training large numbers of workers and how has this factor been addressed within the overall decision making process?

How quickly should we move?

How much time is the employer and union willing to commit to a comprehensive needs assessment? Is the company's intention to simply adopt a quick-fix approach when undertaking the needs assessment and offering the training? Is the time schedule as proposed by management and unions amenable to workers?

What incentives are present to encourage workers to participate in the program?

Will workers be required to participate in the training on their own time before work, after work, or on weekends? Will workers be compensated for the time they invest in participating in the program? Does the company place the same value on basic skills development as it does other forms of skill training offered to workers? Have support needs, i.e., child care, counseling, etc., been fully considered within the overall incentive package to encourage workers to participate in training?

Do company training policies support and promote workplace literacy training?

Have company training policies been reviewed and are they consistent with new proposals to conduct workplace literacy training? Has the human resources and training staff of the company been actively involved in all phases of program planning and decision making? Will basic skills training be integrated within current job skill development programs? Is there unilateral support for workplace literacy training from the top down in the company?

These and other questions will need to be addressed before the workplace literacy needs assessment is initiated. First and foremost, workers throughout the company must be knowledgeable of management's intent to conduct a needs assessment and be encouraged to fully participate. This will require the support and acknowledgement of union officials and workers who have had the opportunity to participate directly on the planning team. Further, the role of each partner on the planning team must be clearly defined prior to engaging in the actual needs assessment.

Summary

This chapter has suggested several strategies for promoting union, management, ABE program and worker collaboration in the design of workplace literacy programs. The next chapter describes the specific steps and procedures for assessing workplace literacy training needs. The process suggested and described is worker-centered. That is, workers are viewed as primary collaborators and contributors in helping to develop an understanding of their needs and interests for workplace literacy training.

CHAPTER 3

ASSESSING WORKPLACE LITERACY TRAINING NEEDS

> *Workplace literacy program can't be imposed by the employer. The fact that they are not employers' programs is important. They must be, and be perceived to be, the workers own programs - dedicated to workers needs.... People only learn when they want to learn, not when someone wants to teach them. Trying to impose a workplace curriculum is as bad as trying to impose any other curriculum.*
>
> **James L. Turk, Ontario Federation of Labour, Canada, 1989 Literacy Symposium**

The latest fads in management and employee training have been to search for quick-fix solutions to correct complex organizational and worker related performance problems. Unfortunately, these hastily applied remedies often miss the mark and fail to address identified concerns entirely. Ill conceived training needs assessments run the risk of misdiagnosing the critical training related needs of workers and often results in faulty programs being developed. This is costly for both the business and the worker. For the business this translates into continued losses in productivity and profits. For the individual worker the costs are also high, many times resulting in needless job loss, reduced opportunities for career advancement, and lowered worker morale. Given these high costs, it is becoming increasingly more important that company training programs be developed based on a thorough assessment of worker needs for such training. Needs assessments must be viewed as the essential starting point for designing training programs.

This chapter describes a process for conducting worker-centered needs assessments to address workplace literacy concerns. This process is described in relation to three broad strategies: (1) at the broadest level, an organizational analysis is initially conducted to identify management's primary concerns regarding worker performance problems; (2) a general work analysis of job content and functions is conducted; and (3) an analysis of the specific and desired work behavior required to optimally perform jobs is conducted. It is this third category of analyzing what workers must know to successfully perform specific job duties and functions that is of primary interest when developing workplace literacy training programs. It is recognized, however, that this third and more specific level of needs assessment must be undertaken following at least a minimal analysis of organizational needs and current job content and functions. This chapter presents several steps for analyzing workplace literacy training needs. Specific strategies are discussed in relation to each step to aid local workplace literacy planning teams in applying these procedures in their own locales and individual business settings.

Step 1: **Analyzing organizational needs for training**

Step 2: **Alerting workers to company intentions**

Step 3: **Developing the needs assessment approach**

Step 4: **Determining needs assessment tools and strategies**

Step 5: **Conducting the workplace literacy needs assessment**

- Job content analysis
- Task analysis
- Basic skills analysis
- Appraise worker's needs for support services

Step 1: Analyzing Organizational Needs for Training

From large company to small, the workplace is rapidly changing at a far greater pace than ever before realized. Today, the truck driver who hauls goods across the United States must now be able to deal with a microcomputer that controls inventory and shipping schedules. The hospital orderly whose job it was to simply take direction from nurses and physicians must now perform a broader and more complex range of technical services. The heavy industrial machine operator whose craftsmanship made him/her king of the blue collar manufacturing world has been replaced by a robot whose accuracy, skills, and precision is even better. These and other changes point to the many types of challenges now being encountered by businesses in the workplace. These changes are dramatically affecting organizational goals and management practices, the structure and content of jobs themselves, and what workers must be able to know and do to be productive in the workplace.

The tendency to immediately associate declines in company productivity and profits with inadequate levels of technical or basic skills among workers is a misleading practice. Many times, difficulties workers experience in performing their jobs are due to a variety of organizationally-based or job-centered influences. These may include new requirements placed on the industry itself to modify or dramatically change current practices, introduction of new technology to accelerate production, requirements to restructure jobs and broaden the skills required of workers, and a variety of other influences. Determining the root causes and sources of worker productivity difficulties is one of the first steps that must be undertaken in analyzing workplace literacy training needs.

Early on in the process, company management, union officials, and workers must work together to identify organizational changes that have occurred in the workplace to reduce productivity levels. Some of these influences and changes typically include: introducing new equipment and technology into the workplace, redesigning production processes, adding new products and services or eliminating existing ones, and/or complying with new occupational certification and safety requirements. All of these and other factors can directly or indirectly affect worker productivity levels.

Before determining whether or not a workplace literacy training program is needed, several basic questions must be addressed. Deriving answers to these questions helps to pinpoint the source of concern as being directly or indirectly related to worker skill levels or other changes within the company. The Human Resources Development Institute (1990) has advocated that several initial questions be answered. These include:

1. What company goals or performance standards are not now being met?

2. What changes are taking place in the work environment?
   - Has new equipment or technology been introduced?
   - Have work practices changed?
   - Have layoffs taken place?
   - Have new jobs been created or old ones restructured?

3. Are there current changes in the business environment that have placed new job requirements and demands on workers -- for example, the purchase of a new computer system for all customer service workers?

4. What are the skills needed to perform effectively in particular jobs or job families now and over the next five years?

5. Do employees or groups of employees lack minimal technical or basic skills to satisfactorily respond to changes in their jobs?

6. Are workers troubled by new work assignments?
   - Are they experiencing problems with new equipment?
   - Are they expressing concerns about increased reading, writing, or math requirements in relation to their jobs?
   - Do employers or supervisors report lowered productivity among workers?
   - Have grievances been filed over new job assignments?

7. What departments, divisions. or specific jobs in the company are most affected?

8. How many workers are in need of basic skills training and are there enough to warrant establishing a formal training program?

9. If a basic skills training program is set up, what are the goals and expected results of the training program?

10. What evidence would indicate that these results had been achieved?

The answer to these and other general questions help begin to address whether or not worker basic skills should be the major focus of training or whether other forms of job specific skill training are more important. Figure 3.1 illustrates a process for conducting a broad-based organizational analysis that can be used to identify primary problem areas in a company. As illustrated in Figure 3.1, the problem is described in general terms and a range of causes and sources are identified. Specific job areas affected are next identified. The purpose here is to identify organizational problems and associate these problems appropriately to company-centered or worker-centered causes. This initial step goes a long way in setting the stage for the subsequent, and more indepth analyses of specific job areas within the company.

Figure 3.1

ORGANIZATIONAL ANALYSIS WORKSHEET

Company County General Hospital
Analyst R. Adams
Team Reviewers Mary Adams, Business Agent Local 12; Joe Jensen, Local 12 Steward; B. Phillips, Head Nurse
Department Pediatrics Department

Date of Analysis March 15, 1992
Action Needed ____________
Department Head B. Phillips, Head Nurse

PROBLEM DESCRIPTION	CAUSES/SOURCES					JOB AREA(S) AFFECTED
	New equipment or technology	Production Process	Worker Job Skills Low	Worker Basic Skills Low	Other or Can't Tell	
Patient records are inaccurate, dates missing, input/output quantity levels discrepant. Unable to evaluate patient status accurately. Physicians, RNs are issuing complaints.	Computers introduced February 1, 1992 to maintain patient records.	N/A	No changes in job descriptions or job routines made.	Computer literacy, e.g., entering data and reading print outs using patient codes, using data entry system, etc.	N/A	Nursing Assistants/ orderlies.

Step 2: Alerting Workers to Company Intentions

Worker involvement has been suggested throughout this guide as an essential means of ensuring that workplace literacy training programs are appropriately designed and that workers themselves come to actively support such training. Management and union representatives must create a positive atmosphere by informing workers of the company's intent to conduct a needs assessment and potentially establish a training program. Union representatives and workers who have been involved in the initial analysis of organizational needs (see Step 1) are generally in the best position to communicate with other workers about the company's interest in addressing workplace literacy training needs. A key part of this communication is explaining to workers the purpose of the program, its potential benefits to them as well as the company, describing the needs assessment process, and nature of the training program to be offered. Workers must come to feel they are equal partners in planning and designing the training program. A variety of strategies can be used by union and/or worker representatives when communicating with workers. Several of these include:

- Having shop stewards and/or union officials make presentations at regularly scheduled union meetings.
- Posting written announcements or fliers in key locations in the workplace.
- Conducting special informational sessions at convenient times for workers during the work day.
- Communicating informally with workers at breaks or lunch periods.
- Publishing notices in company newsletters and/or union newspapers.

When workers are aware of the program and place a positive value on its potential for improving their current and future employment situation the next steps of analyzing training needs, designing the workplace literacy training program, and getting workers involved becomes much easier.

Step 3: Developing the Needs Assessment Approach

Once the workplace literacy planning team has identified potential job areas where productivity has declined, the next step is to conduct a formal needs assessment. The needs assessment is essentially a set of strategies and procedures for identifying a discrepancy between "desired" and "actual" performance among selected employees, work units, or even entire departments within a company.

Training needs assessments can range from highly formal processes conducted by outside consultants and experts to less formal processes managed internally by company training personnel in collaboration with union representatives and workers. ABE professionals can also assume an important role in facilitating the needs assessment process. This will depend, however, on the comfort level that management, unions, and workers have with their local ABE representatives.

Needs assessment procedures themselves vary extensively. Whatever degree of formality is envisioned for the needs assessment process, the bottom line is that it must provide a detailed analysis of the job specific basic skills that need improvement, identify those workers in need of skill training, and ultimately result in the development of a training program that doesn't waste time or resources in non-relevant areas. Before proceeding with a description of specific strategies and procedures for conducting the workplace literacy needs assessment, a perspective is offered.

A Note on "Literacy Audits"

Far too often, employers and educational professionals recommend conducting a formal "literacy audit" as a starting point when assessing the basic skill levels of workers. The "literacy audit" most often involves administering standardized tests to workers or conducting job task analyses. This we believe is a highly intrusive measure which may do nothing more than undermine workers' confidence in the program.

LITERACY AUDITS: POTENTIAL FOR ABUSE

A workplace literacy needs assessment or literacy audit, as it is sometimes referred to, runs the potential for abuse if workers and union representatives are not fully involved in the process. Too often literacy audits are used to justify management decisions that jeopardize workers jobs and earnings. Cited below are several potential abuses of literacy audits:

- Supervisors may use test scores as their primary evaluation standard, regardless of how workers are actually performing their jobs.
- Workers with low scores in a literacy audit may be replaced by new hirees.
- Workers may be pigeon-holed in positions that have no advancement potential.
- Workers may be denied future wage increases on the basis of skill deficiencies identified in the literacy audit.
- Job classifications may be assigned a "grade level" and workers may be disqualified from bidding on them because of their test scores.
- Management may cite identified "skill deficiencies" to justify its opposition to subsequent wage or benefit increases.

From AFL-CIO Human Resources Development Institute (1990).

The term, "literacy audit," was first coined in a U.S. Department of Labor and Education report entitled, The Bottom Line: Basic Skills in the Workplace (1988). Recently, the AFL-CIO's Human Resources Development Institute (1990) has argued that "literacy audits," when conceived and implemented by upper management without union and worker input, have several negative side effects which may jeopardize the overall success of a workplace literacy training program. The fear is that these audits may create an arbitrary standard for evaluating workers performance, hence placing workers jobs in jeopardy. If, for example, management decides that it will conduct a literacy audit by testing workers' reading, writing, or math skills using a standardized test, workers become immediately suspect. This situation becomes even more problematic when sometimes "problem" employees are singled out and tested.

A further abuse of literacy audits is also noted by the Human Resource Development Institute (1990). Some employers, they report, accompany the literacy audit with a job task analysis where workers are observed to determine how they do their jobs and what skills they use. Findings from the job analysis and basic skills testing can be compared to show whether workers possess the skills that they purportedly need for their jobs. Then, in theory, skill upgrading programs can be designed to address the specific demands of the job.

Many times, employers embark on literacy audits even before labor and management have agreed on whether to operate a program at all. We strongly believe that if workers haven't yet become convinced that a training program will serve their interests, the prospect of literacy testing can understandably create general apprehension and fear that test results may be used to penalize low performers instead of helping them. When a union and workers are not involved in laying the ground rules for a testing program or the analysis of jobs they are likely not to support and endorse the program.

Literacy testing and observations of workers simply do not belong in a worker-centered education, training, or literacy program (Human Resources Development Institute, 1990). The basic point is that the needs assessment process must directly involve workers. We describe, in the remainder of this chapter, how workers can directly participate in analyzing training needs.

Step 4: Determining Needs Assessment Tools and Strategies

The determination of needs assessment tools and strategies depends upon the type, nature, and scope of training perceived to be needed within a company. Many times, highly elaborate and sophisticated (as well as costly) needs assessment procedures may not be warranted. On the other hand, the needs assessment should not be taken lightly with strictly informal methods used when analyzing training needs. The following procedures are best described as "middle of the road." That is, the procedures proposed are formal, yet sensitive, to company time and cost constraints. The reader is encouraged to consult other publications and source documents identified at the end of this guide describing detailed procedures for conducting organizational training needs assessments. Several of these include Swanson and Gradous (1986), Gael (1983), McCormick (1979), Business Council for Effective Literacy (1987), Sticht (1987), and Human Resources Development Institute (1990).

The rationale underlying our proposed needs assessment procedures is that: (a) workers know best and can describe accurately the specific requirements and demands of their jobs; (b) job tasks can be identified, clearly stated, and listed to fully define jobs within a company; (c) ABE professionals, company officials, union representatives, and workers can effectively collaborate in conducting the workplace literacy needs assessment; and

(d) information obtained during the needs assessment services as the primary basis for designing workplace literacy training programs.

Next, methods and procedures for conducting the needs assessment are described. Fundamentally, the needs assessment consists of:

- ***the gathering of information pertaining to the work itself*** - that is, the specific tasks, duties, responsibilities, and functions of the job and associated criteria such as task, difficulty level, and quality standards required; and
- ***the gathering of information pertaining to workers themselves*** - that is, the skills and abilities workers need to satisfactorily perform the work, and the needs that workers possess that go beyond the immediate performance of the job, i.e., need for support services, reinforcement, and rewards.

This distinction establishes the general boundaries of the needs assessment around two critical dimensions -- the worker and the work itself. Four methods or strategies are suggested for gathering information on workers and the work they perform. These include: (a) job content analysis, (b) task analysis, (c) basic skills analysis, and (d) the appraisal of worker's needs for support services. Before each of these methods are described, specific information gathering procedures are presented. While procedures for collecting information on workers and their jobs vary extensively, the following are suggested as among the more efficient and effective approaches based on our experience in conducting workplace literacy training programs. These include:

- individual interview
- group interview
- observation-interview
- technical conference
- materials review
- structured surveys

These information gathering procedures may be used individually or in combination when assessing workplace literacy training needs. The various methods of collecting job related information are discussed below. Please note that each method requires the direct involvement and participation of workers to obtain essential information.

Individual interview. Workers, supervisors, union business agents, and others knowledgeable of the job or jobs under analysis can all be individually interviewed about actual work activities performed by workers. Interviews are typically structured with pre-determined questions identified. These interviews may be conducted by a knowledgeable company human resources specialist or an outside consultant or analyst such as a professional from a local ABE program. In most cases, several workers within the same job classification are interviewed for the purposes of comparing, contrasting, and verifying information. Individual interviews alone might be appropriate to define basic job difficulty areas, job task information, perceptions workers have of their basic skill training needs, interest and motivation levels to participate in workplace literacy training, as well as worker needs for support services. Individual interviews alone, however, are generally insufficient to gather all the information needed. Described here are several additional procedures.

Group interview. This method is similar to the individual interview except that small groups of four to eight workers, supervisors, union representatives, and other knowledgeable individuals are interviewed at the same time. The group interview process can be structured or open-ended. Structured questions are usually developed and then asked when responses need to be compared across more than one group interview session. Open-ended questions allow group participants to describe jobs and related working conditions in their own words. Brainstorming is commonly used as a means of identifying job specific difficulties and training needs. Here too, a company human resource specialist or outside consultant such as an ABE professional can be requested to lead this activity.

Observation-interview. Direct observations of workers performing their jobs is advocated only if an interview is scheduled following the observation period. Observation alone may be of limited use in that it is difficult to observe many aspects of the job especially those associated with cognitive and basic skills processes. For example, the ability to reason and problem solve are not readily observable. It is recommended that an interview be scheduled following the observation to explore further what the job analyst has observed.

Technical conference. This strategy involves convening a group (or groups) of experienced workers, supervisors and/or department heads, company human resources and/or training staff, and union representatives for the purposes of discussing and defining specific job related performance difficulties in primary work areas. Technical conference participants should represent those most knowledgeable of the job or jobs under analysis. They are the individuals most familiar with the technical difficulty levels of the work itself and can most readily differentiate the causes and sources of productivity loss in a given job area. This method helps to clarify whether or not productivity problems are due to organizational influences or skill deficiencies among workers.

Materials review. This involves the collection of pertinent materials that are directly or indirectly associated with the performance of specific job duties. This includes the gathering of such items as job descriptions, materials workers are required to read or write in relation to their job, technical manuals, forms, and other samples of job related materials. The gathering of these materials aids the needs assessment process by defining what workers must know and be able to do to perform their jobs adequately.

Structured survey. Surveys and questionnaires are commonly used in conducting training needs assessments. They consist of structured questions intended to elicit responses from workers, supervisors, union representatives, and others on a variety of informational areas. This may include verification of tasks associated with the workers' job role, information regarding worker's needs for job skill training, worker and supervisor perceptions regarding the type and amount of basic skills needed to perform specific job tasks, identification of worker needs for support services, and worker attitudes toward proposed training programs. Structured surveys can be developed and administered to any number and/or combination of individuals, i.e., union officials, company management, senior workers, new job entrants, etc. Surveys must, however, be carefully constructed in order to derive consistent and meaningful information across intended respondents. It is important to solicit worker input and involvement when developing surveys or questionnaires and request their assistance in piloting instruments prior to broader distribution throughout the company.

Step 5: Conducting the Workplace Literacy Needs Assessment

The Case of County General Hospital. County General Hospital is located in a large metropolitan community in a midwest state. In recent years, recruitment of qualified individuals into the position of nursing assistant/orderly has become increasingly difficult. Hospital administrators have concluded that the available pool of acceptable applicants is diminishing and they are concerned about the overall quality of individuals they are now hiring.

The head of the Pediatrics Department has received reports from registered nurses that nursing assistants/orderlies are experiencing a number of job related performance problems. Mix-ups have occurred when patient specimens are delivered to the hospital lab, errors are found on patient records, patient admission and discharge forms are inaccurately filled out, supplies are placed in the store room without being recorded appropriately, and other problems.

In the hopes of correcting this situation a planning team involving hospital training staff, nurse supervisors, nursing assistants/orderlies, and union officials, has been convened. A representative from a local ABE program knowledgeable in literacy training has also been invited to participate. The planning team is attempting to analyze whether or not these performance problems among nursing assistants/orderlies are due to a lack of job knowledge and skills or more related to a lack of job specific basic skills.

Several strategies including job content analysis, task analysis, and basic skills analysis are being considered by the planning team to assess worker needs for training. The hospital has made a firm commitment to fully involve workers in the needs assessment. The primary goal of the planning team is to specifically identify areas in which nursing assistants/orderlies can benefit from additional training. The question is what type of training? Job skill training or basic skills training? The remainder of this chapter explores the answer to this question through a variety of suggested needs assessment strategies and procedures.

Job Analysis

Job analysis has been used for many years as a primary means for developing job descriptions, determining wage levels, and analyzing job qualifications. Over the years, job analysis has been routinely applied in industrial and business organizations, government organizations, organized labor, the military, and educational settings. The Employment and Training Administration of the U.S. Department of Labor has actively promoted the use of job analysis in industry settings. Detailed procedures and guidelines for conducting job analysis are covered in the Handbook for Analyzing Jobs (1972), published by the U.S. Department of

Labor. The reader is encouraged to consult this publication for further information on formal job analysis procedures.

Figure 3.2 illustrates the range of content included in comprehensive forms of job analysis. These procedures can be adapted and modified when attempting to analyze training needs within a company. If companies have used thorough job analysis procedures in developing job descriptions it may suffice to use these carefully developed job descriptions as a starting point assessing training needs. The point here is that accurate and up-to-date job descriptions should be used when beginning the assessment of workplace literacy training needs. Sometimes, company job descriptions have not been recently updated. If this is found to be the case, modified job analysis procedures should be used to update job descriptions in those classifications of jobs under review in the training needs assessment. Figure 3.3 illustrates a simplified job description for the position of nursing assistant/orderly at County General Hospital.

Conducting a job content analysis is an important part of the job analysis process. The job content analysis primarily involves collecting materials that workers routinely use on the job. This includes inventory lists, merchandise reporting forms, memoranda, technical manuals, billing systems, balance sheets, requisition forms, and a wide variety of other materials. The content analysis of these job related materials focuses on the degree of basic skill proficiency and technical knowledge and skills an employee must have to adequately perform their job. These materials are examined to determine reading levels, necessary vocabulary, math skills, reasoning and problem solving abilities, and other generalized and specific skills. It is also important that these materials be analyzed to determine their direct and functional relationship to the job.

While the content analysis of job related materials provides useful information when planning workplace literacy training programs, it is also useful to conduct interviews with workers and supervisors to determine the extent to which these materials are actually used in day-to-day work routines. The content analysis alone will not uncover the full range of basic skills that workers must utilize on a regular basis. It is recommended that the analysis of these job related materials be combined with other strategies such as individual and group interviews with workers and supervisors, a technical conference with senior workers and management, conferences with union officials, as well as surveys.

Together, the job analysis and job content analysis set the stage for conducting a task analysis of specific job functions. The development of task statements is viewed as one of the most important steps in linking job related basic skills to specific job requirements.

Task Analysis

Task analysis generally covers a range of analytic procedures used in describing human work behavior in relation to task performance and completion. The job analysis procedure described above is used to produce a task inventory. This basic inventory of job tasks offers a broad picture of what is involved in a particular job. The connotation that an "analysis" occurs systematically should be somewhat tempered. Task analysis is a term that should be used rather loosely since the procedures used in the analysis of work activity can be examined at various levels of specificity.

Figure 3.2

TYPICAL CONTENT OF A JOB ANALYSIS

The following identifies some of the types and categories of information that can be obtained by job analysis procedures:

A. Work Activities

1. Job description
2. Description of job tasks and functions
3. Work procedures used
4. Personal accountability/responsibility
5. Work behaviors required
6. personal job demands

B. Work Performance Requirements

1. Work Measurement (i.e., time taken)
2. Work Standards
3. Error Analysis
4. Other Aspects

C. Machine, Tools, Equipment, and Work Aids Necessary

1. Materials Process
2. Products Made
3. Knowledge Dealt with or Applied (such as technical knowledge)
4. Services Rendered (such as serving customers or repairing goods)

D. Job Context

1. Physical Working Conditions
2. Work Schedules
3. Organizational Context
4. Social Context
5. Incentives (financial and non-financial)

E. Job Qualifications and Requirements

1. Job Related Knowledge/Skills (education, training, and work experience required)
2. Personal Attributes (aptitudes, physical characteristics, personality, and interests required)

Figure 3.3

JOB DESCRIPTION

Job Title Nursing Assistant/Orderly

Reports to Head Nurse, B. Phillips

Department Pediatrics

Date Reviewed March 20, 1992

Analyst R. Adams

Approved by B. Phillips

Job Summary:
Performs routine duties and delegated assignments under the supervision of the registered nurse to help meet the mission and goals of quality care and service excellence at County General Hospital.

Job Qualifications:
Completion of Nursing Assistant Program or previous nursing experience required. Current BCLS Certification. Previous experience as nursing assistant in pediatrics unit.

Job Responsibilities:

1. Performs delegated treatments/care, appropriate to the age of clients, under the supervision of the registered nurse in accordance with applicable policies and procedures.
2. Cooperates with human resource management within the unit to achieve quality services and positive employee relations under the direction of the RN, head nurse, and administrative supervisors.
3. Communicates appropriate information with others according to established procedures so that day-to-day operations are effectively conducted.

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4. Exhibits excellent customer relations with patients/clients, visitors, physicians, co-workers, and community and referral sources, so that County General Hospital is known for service excellence.

The level of specificity depends in large part on the purpose of the analysis. In some cases, a very detailed breakdown is necessary to identify the specific knowledge, skills, and abilities required for successful performance. In other cases such detailed breakdowns are not necessary. Decisions as to how specific activities should be broken down depends, in many case, on the importance of the job task in relation to other tasks that define the total job itself. Generally, the more detailed analyses are used in the development of training programs. Here, broader tasks can be dissected into subtasks or "job elements" which represent the smallest step into which it is practical to subdivide any work activity.

In general terms, a task is defined as a discrete unit of work performed by an individual. The U.S. Department of Labor, the United States Air Force, and major corporations have devoted considerable attention to developing criteria and processes for analyzing job tasks. Because the identification of job tasks is so fundamental and central to the development of employee training programs a further delineation of the criteria for identifying tasks is provided here. These criteria are based on work previously concluded by various governmental organizations and private industry. Using the example of the nursing assistant/orderly position illustrated in Figure 3.4, Job Task Summary, the following criteria apply:

- A task is a group of related activities directed toward a goal.
  Example: *Records patient intake/output accurately.*

- A task usually has a definite beginning and ending.
  Example: *Obtains and transports specimens.*

- A task involves people's interaction with equipment, other people, and/or media.
  Example: *Converses properly with hospital patients.*

- A task, when performed, results in a meaningful product or outcome of a performed set of actions.
  Example: *Measures and records patient's height and weight accurately.*

- A task includes a combination of decisions, judgements, and/or physical (motor) activities.
  Example: *Maintains "clean" and "safe" patient environment.*

- A task may be of any size or degree of complexity.
  Example: *Completes admission, transfer, and discharge functions as directed by RN.*

In each of the examples above, work processes and actions are readily observable. This means that the work output, end product, or process itself can be readily evaluated or measured. What is less clear, however, are the specific cognitive activities and processes comprising these tasks. It is inferred, for example, that a nursing assistant/orderly must be able to understand basic mathematical concepts when measuring patient heights and weights. This same task, however, also involves reading, writing, problem solving, and reasoning abilities. These are the basic skills required to successfully master the job tasks themselves.

Figure 3.4

JOB TASK SUMMARY	
Job Title Nursing Assistant/Orderly	Date Reviewed March 20, 1992
Reports to Head Nurse, B.	Analyst R. Adams
Department Pediatrics	Approved by B. Phillips

Task Analysis:

1. Measures and records vital signs, intake/output, and patient weights.
2. Obtains and transports specimens.
3. Maintains clean patient environment and stocks supplies needed by unit.
4. Completes patient admission, transfer, and discharge functions as directed by RN.
5. Puts away supplies as they arrive on unit.
6. Assists with the objective assessment of new equipment.
7. Communicates both written and verbal information in a clear, concise, and accurate manner.
8. Respects and maintains confidentiality of all patient records and information.

Conventional training needs assessment methods in industry and government settings rely on the development of task inventories, refinement of task descriptions, and analysis of the knowledge and job specific skills workers require to complete tasks successfully. Training programs are then designed to give workers job specific content information. It is assumed that workers, receiving such information, will apply it, without much difficulty, in the performance of their duties. Seldom do these training programs address the cognitive processes or basic skills workers must possess to learn and apply new knowledge. This, however, is what workplace literacy programs are now attempting to address. Nonetheless, an important aspect of conducting the workplace literacy needs assessment is to initially identify tasks and analyze these tasks in relation to expected worker performance levels.

Once the job tasks have been identified, a second level of analysis is typically undertaken. An important aspect of the overall needs assessment process is to clarify and target specific areas in which training may need to occur. One method of doing this is to construct rating scales to evaluate attributes of specific tasks. Job tasks can vary substantially in terms of their importance, difficulty levels, time workers spend on each job task, and frequency in which tasks occur during a given work day. The needs assessment is used to identify the relative magnitude, scope, sequence, and nature of tasks performed. If workers are experiencing performance difficulties in relation to job tasks which are infrequently performed on the job the decision may be to introduce a modest or informal training program. More extensive or comprehensive training, on the other hand, may be required when performance difficulties are associated with highly important and frequently occurring tasks. Common questions to ask workers in relation to specific job tasks they perform include:

- How **important** is each task to your current job?
- How **difficult** is each specific task to perform?
- How much **time** do you spend on each job task?
- How **frequently** do you perform each of these tasks?

Figure 3.5 illustrates one method for identifying the importance of specific job tasks using the example of the nursing assistant/orderly position. A simple Likert-type scale can be constructed for evaluating and weighting worker responses to specific job tasks. The development of rating scales and surveys is not a difficult or costly measure. In fact, in reviewing Figure 3.5, the procedure is relatively simple and straight forward.

Scoring an analysis of the surveys is also an easy task. Informal surveys such as this can also be used to structure individual and group interviews. Other strategies, such as comparing supervisor and worker perceptions on task importance, difficulty, estimations of time involvement, and frequency are also easily accomplished. One important aspect of the needs assessment is to begin to target specific training areas based on an understanding of the relative magnitude and importance of individual job tasks.

Figure 3.5

JOB TASK IMPORTANCE INVENTORY

Job Title Nursing Assistant/Orderly	Date Reviewed March 25, 1992
Reports to Head Nurse, B. Phillips	Analyst R. Adams
Department Pediatrics	Approved by B. Phillips

Directions: Some tasks you perform are more important or significant for your job than others. Read each task statement carefully and decide how important the task is in your present job. Circle only one response for each job task identified.

	Job Task	Importance Level						Score
		not at all	low	slightly	somewhat	high	extreme	
1.	Measures and records vital signs, intake/output, and patient weights.	0	1	2	3	4	[✓ 5]	5
2.	Obtains and transports specimens.	0	1	2	[✓ 3]	4	5	3
3.	Maintains clean patient environment and stocks supplies needed by unit.	0	1	2	[✓ 3]	4	5	3
	. . .							. . .
8.	Respects and maintains confidentiality of all patient records and information.	0	1	2	3	[✓ 4]	5	4
	Total Score							32

For Job Task 1 in the example above, a five was circled indicating that a nursing assistant's responsibility for measuring and recording vital signs, intake/output, and patient weights is of extreme importance.

On item 3, the job task of maintaining a clean patient environment and stocking supplies needed by the unit has somewhat less importance. The number 3 was circled indicating that this job task is somewhat important to the job of nursing assistant.

The bottom, far right corner of Figure 3.4 reports a total score of 32. This was derived by adding all importance scores for each job task. The total score of 32 assumes that scores were also available for items 4, 5, 6, and 7. The total score can also be used when evaluating differences among several nursing assistants who hold the same or similar job responsibilities. Please note that for each job task it is also desirable when summarizing several workers importance ratings to calculate the range and mean or average score.

Basic Skills Analysis

There are two fundamental approaches for analyzing basic skills in the workplace. These include: (1) obtaining worker self assessments and ratings of basic skill usage and proficiency levels, and (2) administering standardized tests to workers. We advocate that worker self assessments of basic skills provide a valid and reliable basis upon which training programs can be established. Administering standardized achievement tests to assess basic skill levels, we believe, is less desirable. This was discussed earlier in this Chapter. Several additional cautions in using standardized tests are offered here.

Traditionally, adult education programs as well as company training programs have relied on standardized achievement tests to place learners and measure their progress. The most widely used standardized tests for adults include: *Test of Adult Basic Education* (TABE), *Adult Basic Learning Education* (ABLE), *California Achievement Test*, *Stanford Diagnostic Reading Test*, and numerous others. Virtually all of these standardized tests have major shortcomings. These include: flaws in test design, unreliability in the way the tests are administered, and legal problems in the way test results are used. The most significant flaw is that these tests are designed to measure generic levels of basic skills and neglect the relevance of such skills within specific job situations. The more important consideration is to assess the extent to which basic skills are associated with and necessary to successful job task performance.

There are also legal ramifications when standardized tests are inappropriately used. The Human Resources Development Institute (1990) contends that when an employer uses standardized tests as the basis for any employment decisions -- hiring, training, promotions, demotions, lay-off -- then those tests must meet the criteria for nondiscrimination under Title VII of the Civil Rights Act of 1964. Title VII bars employment related tests that have a discriminatory effect on any group due to race, national origin, sex, age, or religion. Such tests are illegal even if the employer didn't intend to discriminate and even if the union and company agree to the use of one or more standardized tests, each could be held legally liable (Human Resources Development Institute, 1990).

We are not suggesting that standardized tests be eliminated from consideration, but rather that they be used with caution and full regard for their impact on workers. Groups interested in using standardized tests should consult guidelines adopted by the Equal Employment Opportunity Commission, Departments of Labor and Justice, and U.S. Civil Service Commission. These guidelines outline the legal criteria for employment related testing and other employee selection procedures under Title VII of the Civil Rights Act of 1964.

It is our position that worker self-assessments of basic skills can produce a sound and reliable basis for developing workplace literacy training programs. A variety of approaches and strategies can be used when conducting worker self-assessments of basic skills. Individual and group interviews with workers and supervisors, technical conferences, and surveys are all useful procedures.

The recent availability of generic skills lists have aided developers of workplace literacy training programs. Publications such as Adult Literacy: Skills for the American Work Force (Hull & Sechler, 1987), Adult Literacy Skills Required for Training the Workplace (Campbell & Sechler, 1984), Basic Skills in the U.S. Work Force: The Contrasting Perceptions of Business, Labor, and Public Education (Henry & Raymond, 1983), and Job Related Basic Skills: Cases and Conclusions (Sticht & Mikulecky, 1984) all contain useful generic skills lists. Table 3.1 provides an example of a generic skills list developed through the National Center for Research in Vocational Education (Hull & Sechler, 1987). Such lists provide a useful framework for organizing, identifying, and verifying the nature of literacy skills in work environments.

In using basic skills lists or other strategies, the principal aim is to evaluate the relationship between these generic basic skills and individual job tasks. Rating scales may be constructed to obtain worker self-assessments of this relationship. Figures 3.6 and 3.7 offer a suggested method for assessing job specific basic skills usage and basic skills proficiency levels. Figure 3.6 illustrates how workers can rate their current usage of basic skills in relation to specific job tasks. The rating scale can be administered to individual workers or a group of workers within the same job classification. The purpose of the rating scale is simply to assess the relative emphasis given to certain basic skills over others in the performance of individual job tasks. Understanding this helps to identify critical or important areas that should be addressed by the workplace literacy training program. The reader is referred to the footnotes found at the bottom of Figure 3.6 for further information on the use of this scale.

The rating scale and procedures shown in Figure 3.7 allows workers to assess their individual basic skill levels for each job task performed. For example, the rating scale in Figure 3.7 permits workers to individually self-assess basic skills proficiency levels across job tasks they are required to perform. Again, this type of rating scale can be administered to individual workers or groups of workers working within the same job classification. Rating scales can also be distributed across work units, divisions, or departments where individuals are required to perform similar job tasks. The description found at the bottom of Figure 3.7 illustrates the importance and use of these scales, using our example of the nursing assistant/orderly position.

The reader should note that the rating scales shown in Figures 3.6 and 3.7 provide for only a broad screening of basic skills usage, and proficiency levels. This, however, is an important function of the needs assessment process. There are also useful ways in which to organize and summarize information obtained through the surveying and/or interviewing of workers. Figure 3.8, Job Summary and Planning Worksheet, for example, allows the workplace literacy planning team to examine several sets of information simultaneously. Here, information shown in Figures 3.5, 3.6, and 3.7 is compared. That is, worker self ratings of job task importance, basic skills usage and self assessments of basic skills proficiency levels are combined to identify specific areas in which workplace literacy training may be needed.

TABLE 3.1

SKILLS NEEDED BY EMPLOYEES TO ENTER AND PROGRESS ON THE JOB

Reading
- Pronounces consonants and vowels correctly
- Pronounces syllables correctly
- Pronounces each word correctly
- Discriminates among visual words
- Reads for facts and information
- Follows written instructions
- Reads for ideas, logic, and meaning
- Draws conclusions from statements read
- Can detect bias and inconsistencies

Mathematics
- Reads, writes, and counts
- Adds, subtracts, multiplies, and divides
- Uses fractions and decimals
- Converts fractions to decimals/decimals to fractions
- Measures with accuracy using English and/or metric systems
- Solves problems using numbers, fractions, and decimals
- Estimates areas or values
- Uses a calculator

Writing
- Knows letters of alphabet
- Can copy texts
- Capitalizes words correctly
- Spells correctly
- Punctuates with commas, colons, semicolons, dashes, quotation marks correctly
- Handwriting is legible
- Uses correct grammar
- Writes sentences, paragraphs
- Writes letters, reports, messages
- Completes forms and applications
- Signs forms appropriately
- Writes dates and times

Listening
- Identifies procedures to follow
- Understands concepts, technical information
- Is attentive
- Identifies the main idea from a speech
- Draws conclusions
- Applies information learned
- Identifies additional information needed
- Distinguishes relationships

Speaking
- Selects words appropriately
- Vocabulary is adequate
- Speaks face to face
- Uses telephone well
- Gives information/directions clearly

Adapted from Hull, W., & Sechler, J. (1987). Adult literacy: Skills for the American work force. Columbus, OH: National Center for Research in Vocational Education, The Ohio State University.

Figure 3.6

GENERAL JOB TASK BASIC SKILLS ANALYSIS

Job Title Nursing Assistant/Orderly	Date Reviewed March 24, 1992
Reports to Head Nurse, B. Phillips	Analyst R. Adams
Department Pediatrics	Approved by B. Phillips

Directions: Performing job tasks day-to-day requires that you use several types of basic skills, i.e., reading, mathematics, writing, listening, and speaking. Some of these basic skills are used more than others in relation to each job task or duty. Read each job task statement carefully and describe, using the scale provided below, the general level of basic skills you feel are required to successfully perform each of your job tasks. For each of the job tasks listed, indicated by using a 0, 1, 2, or 3 (as noted below) the basic skill level required for this task across all five basic skill categories.

0 = This basic skill does not apply to this job task.
1 = This basic skill is used, but only minimally to complete this job task.
2 = This basic skill is important to the completion of this job task.
3 = This basic skill is very important for the completion of this job task.

Job Task	BASIC SKILL USAGE					Score
	Reading	Mathematics	Writing	Listening	Speaking	
1. Measures and records vital signs, intake/output, and patient weights.	3	3	2	2	1	11
2. Obtains and transports specimens.	2	2	2	3	1	10
3. Maintains clean patient environment and stocks supplies needed by unit.	3	3	1	1	1	9
. . .						
8. Respects and maintains confidentiality of all patient records and information.	2	1	2	2	1	8
Total Scores	21	25	12	13	8	79

Figure 3.6 continued on next page.

Figure 3.6 continued

When surveying or interviewing workers, it is useful to attach a separate page providing definitions of each of the basic skill areas, i.e., reading, mathematics, writing, listening, and speaking. These definitions should be kept short, straightforward, and easy to interpret by all workers. This strategy may help to improve the reliability and comfort level of workers completing the general job task basic skills analysis.

In the hypothetical example above, variability is noted in the assignment of basic skill usage ratings to each of the job tasks. The job task of measuring and recording vital signs, input/output, and patient weights illustrates that reading and mathematics are very important to the job of nursing assistant/orderly, writing and listening are important, and the basic skill of speaking is used, but only minimally in relation to the job task.

Total scores are reported for each column and row. Columns report on the overall rating for each of the five basic skill areas. This is useful when attempting to analyze the relative basic skill usage across a complete set of job tasks. From the information above, it is found that mathematics and reading are by far the most utilized basic skills in the position of nursing assistant/orderly. Scores are also reported by rows providing a composite score for each job task. This is useful when attempting to identify the level of basic skill usage for specific job tasks. The overall composite score of 79 as shown is also useful in comparing differences among workers in the same job classification. The range and mean scores for the numeric weights provided in the columns, rows, and composite score across several workers can be simply calculated to illustrate differences in perceptions regarding basic skill usage in the job.

Figure 3.7

EMPLOYEE BASIC SKILLS INVENTORY

Name S. Olson

Job Title Nursing Assistant/Orderly

Department Pediatrics

Date Completed March 27, 1992

Department Head B. Phillips

Directions: To perform job tasks requires that we routinely use different types of basic skills, i.e., reading, mathematics, writing, listening, and speaking. How basic skills are used and required to complete certain job tasks varies from job to job. Everyone differs in their abilities to read, do mathematics, write, listen, and speak. To complete this form, read each task statement carefully and describe, using the rating scale below, what you feel are your current basic skill levels. For each job task, please place your rating in each of the five basic skill areas, i.e., reading, mathematics, writing, listening, and speaking, identified below. Use the following scale:

0 = This basic skill does not apply to this job task.
1 = My basic skills are above what is now needed for this job task.
2 = My basic skills are at the level which is needed for this job task.
3 = My basic skills are somewhat below what is needed for this job task, but I get by OK.
4 = My basic skills are somewhat below what is needed for this job task, and I am experiencing some job difficulties because of it.
5 = My basic skills are below what is needed for this job task and I would be interested in improving this skill.

Job Task	BASIC SKILL USAGE					Score
	Reading	Mathematics	Writing	Listening	Speaking	
1. Measures and records vital signs, intake/output, and patient weights.	4	4	3	1	1	13
2. Obtains and transports specimens.	2	3	2	1	1	9
3. Maintains clean patient environment and stocks supplies needed by unit.	3	3	2	1	1	10
. . .						
8. Respects and maintains confidentiality of all patient records and information.	3	0	2	0	1	6
Total Scores	20	26	16	5	8	75

Figure 3.7 continued on next page

Table 3.7 continued

The Employee Basic Skills Inventory can be completed by means of a face to face interview or independently by the employee. In both cases, it is useful to provide a simple and straight forward definition of the five basic skills areas identified above in this figure. This will help to clarify worker responses to each of the five areas during the self assessment process.

As illustrated in the hypothetical example provided in Figure 3.6, this employee has indicated that his or her reading and mathematics skills are somewhat below what is needed for the job. Based on the rating, the employee is either getting by OK or experiencing difficulties in relation to performing certain job tasks. In the other basic skills areas, i.e., writing, listening, and speaking, they report being generally at or above what is needed for the job. This information helps to target, in a general way, broad basic skill areas in which the individual employee may or may not be experiencing difficulties.

Summary scores are provided for each of the five basic skill areas and individual job tasks. The columns can be summarized to report on specific basic skill areas across an entire job. For example, when examining the columns labeled reading and mathematics, it is noted that the total scores of 20 and 26 respectively are much higher than those reported in the basic skill areas of writing, listening, and speaking. When examining basic skill areas for specific job tasks, summary scores are also used. For example, on Job Task 1 a score of 13 is obtained by adding each of the five basic skill areas. This is useful when comparing differences in the employee self assessment of their basic skills across individual job tasks. The composite score of 75 is obtained by adding the rows and columns. This score is useful when comparing differences among workers in the same job classification.

Simple calculations of range and mean scores can be made when summarizing basic skill self assessments among several workers. Such information is useful when attempting to identify broad basic skill areas employees perceive as in need of improvement. Planning the workplace literacy curriculum based on this type of information helps to ensure that the training is job specific and the basic skills developed are directly relevant to the workers' needs.

Figure 3.8 illustrates the use of this information in planning workplace literacy training programs. Using the example of the nursing assistant/orderly we see that job task #1 measures and records vital signs, intake/output, and patient weights; rates highest in importance among other job tasks. We also see that reading and mathematics appear to be highly associated with the performance of this individual job task. The worker, in our case example, however, has rated their basic skill level in reading and mathematics as below what is needed to perform the job adequately. What becomes particularly useful is to summarize and compare such information across groups of workers. Once this information is at hand, the workplace literacy planning team can make judgements and recommendations on what is to be included in the workplace literacy training program.

The next step is to conduct an indepth analysis of job specific basic skills. Figure 3.9 illustrates a method for organizing this information. Here, the example of the nursing assistant/orderly position is once again used. Based on the summary information obtained in Figure 3.8, reading and mathematics are reported to be used frequently on the job, however, the worker has indicated a need for improvement in these areas. Based on this finding, a further analysis of the job specific nature of reading and mathematics can be conducted. This information can be obtained from earlier job and content analysis procedures, interviews with individual workers or groups of workers, combined observation and interview techniques, as well as technical conferences with senior workers and supervisors. The basic skills list described earlier (see also Table 3.1) may also be used to pinpoint specific basic skill areas. Once this information has been gathered and verified across several workers in the same or similar job classification(s) it can be summarized and provide a valid starting point for designing the workplace literacy training program.

As suggested throughout this chapter, worker self assessments of workplace literacy training needs provide a valid and important basis upon which programs can be designed. The most important point is that workers must have opportunities to directly participate in the needs assessment process and have the information they provide used in guiding and directing their own learning.

Appraise Workers' Needs for Support Services

Sometimes, workers need personal assistance and support services to participate in training. Employers may require, for example, that training occur outside of regular working hours, in the evening, or on weekends. In this situation, the worker may incur additional child care, transportation, and other expenses. Other situations may arise where workers need advice or counseling on their current job situation. Some workers may also become highly motivated to seek additional postsecondary education. In these situations, consultation with professionals from community education programs is desirable. Whatever the situation, support services should be made available in the workplace. Appraising the workers needs for support services is an important aspect of the overall needs assessment process. Examples of commonly needed support services include:

Figure 3.8

JOB SUMMARY AND PLANNING WORKSHEET														
Job Task	Importance Weight	Basic Skill Usage						Worker Skill Assessment						Total Score
		R	M	W	L	S	Total	R	M	W	L	S	Total	
1. Measures and records vital signs, intake/output, and patient weights.	5	3	3	2	2	1	11	4	4	3	1	1	13	29
2. Obtains and transports specimens.	3	2	2	2	3	1	10	2	3	2	1	1	9	22
3. Maintains clean patient environment and stocks supplies needed by unit.	3	3	3	1	1	1	9	3	3	2	1	1	10	22
. . .														
8. Respects and maintains confidentiality of all patient records and information.	4	2	1	2	2	1	8	3	0	2	0	1	6	18
Total Scores	32	21	25	12	13	8	79	20	26	16	5	8	75	186

The Job Summary and Planning Worksheet is used to compare the three general categories of information found in Figures 3.5 to 3.7. Figure 3.8 illustrates the importance, basic skills usage, and the worker's self assessment of basic skills. These three categories of information when compared provide useful information for targeting needs to specific job tasks, across the five basic skill areas.

The purpose here is to examine discrepancies between basic skills usage and worker's self reports of current basic skill levels for each job task as well as the job as a whole. For example, it is noted that reading and mathematics usage is rated high by the nursing assistant/orderly, but their self assessment of these same basic skills is found to be somewhat below what is needed for the job. In this hypothetical case the employee reports either getting by OK or experiencing some difficulties in completing tasks. With this information at hand, general areas can begin to be pin pointed for developing the workplace literacy training program.

Typically, the person conducting the needs assessment will aggregate or summarize the importance, basic skill usage, and worker self assessment weights across several workers in the same or similar job classifications. By doing this, group training needs can be identified. Figure 3.8 illustrates a conceptual framework for identifying both individual as well as group training needs.

Figure 3.9

INDEPTH ANALYSIS OF BASIC SKILL NEEDS

Job Title: Nursing Assistant/Orderly

Targeted Basic Skills Areas: Job-related reading and mathematics

Reading:

- Reads graphs, charts, and gauges.
- Reads and understands prefixes and suffixes.
- Understands correct terminology for recording vital signs, liquid intake/output, equipment used, and others.
- Recognizes and understands words such as volume, maximum/minimum, liter, and others.
- Understands concepts and appropriate applications of terms such as estimation and approximation, rate, time, levels, and others.
- Accurately follows written directions.
- Reads and follows written instructions on patient charts and records.
- Reads and understands technical terminology.
- Reads and completes patient admission, transfer, and discharge procedures and forms.
- Spells common and technical words correctly.
- Reads and understands computer print outs, codes, and general commands.
- Others...

Mathematics:

- Records simple and mixed decimals.
- Organizes specimen samples by codes, numeric values, and symbols.
- Understands volume and capacity measurements.
- Reads numeric data accurately on patient charts.
- Follows accurately inventory code systems and numeric serial numbers when stocking items.
- Accurately measures and uses cleaning materials and products based upon manufacturers' instructions.
- Fills orders by numeric codes.
- Understands graphs, charts, and temperature gauges.
- Understands basic math concepts such as whole numbers, fractions, decimals, etc.
- Others...

- **child care** - to help defray the costs of child care for workers while they participate in workplace literacy training programs outside regular working hours or pursue other forms of post-secondary education and adult training to enhance their current job skills.

- **family counseling and referral** - to assist families in resolving personal or financial problems that in one way or another inhibit the worker's participation in training programs inside or outside the company. This may also include referring parents to early childhood family education services and other community social service agencies where specialized assistance can be obtained.

- **career counseling** - to assist workers in setting future career goals related to advancements within the company.

- **educational referrals** - to help workers locate appropriate adult education and training programs in the community where they can continue to develop their job and/or literacy skills. This may include giving workers information on how to complete their general education diploma (GED), pursue postsecondary vocational training, access college and university programs, or locate adult literacy programs in the community.

- **worker support groups** - the union may wish to establish support groups where workers sharing similar education and training concerns can get together to discuss their experiences.

Methods for identifying worker needs for support services can be easily structured. Interviews, surveys, group discussions among workers, and consultations with union representatives are common avenues. Support services can also be made available through local adult education, community education, and social service programs.

Summary

The information obtained through the job analysis, task analysis, basic skills analysis, as well as the appraisal of worker needs for support services are all summarized and used by the workplace literacy planning team to determine training program content and direction. Appendix C provides a list of selected publications and resources, and Appendix D contains photo-ready copies of the forms presented in this chapter. The next chapter briefly discusses key concepts and strategies for designing workplace literacy training programs.

CHAPTER 4

DESIGNING WORKPLACE LITERACY TRAINING PROGRAMS: ESSENTIAL CONCEPTS AND STRATEGIES

We need to clear up some common misconceptions about literacy in today's workplace. With continual changes in the workplace and the growing complexity of our modern world, workers place demands for new or different skills. As a result, our definition of what it means to be "literate" is both broader and more complex than it used to be. For workers to update their literacy skills in a changing world, education and training must become more available to people of all ages in their workplaces and communities. Unfortunately today, most adults get little opportunity to improve their current skills.

AFL-CIO Human Resources Development Institute, 1990

In their publication, The Bottom Line: Basic Skills in the Workplace (1988), the U.S. Department of Labor and Education outline several steps that companies can take once basic skills problems have been identified. These include:

- Redesign tasks and rewrite job related materials so that they demand skills of the level that actually exists among employees.
- Establish training programs for new employees so that they enter the jobs with the necessary workplace literacy skills.
- Design training programs to bridge whatever gaps have been found between employee abilities and job requirements.

It is obvious that workplace literacy training programs can take on a number of different forms and purposes within the workplace. The planning team must decide on the specific avenue or avenues that need to be pursued for addressing the type, level, and nature of job specific basic skills among the work force. This includes establishing training program goals, selecting an educational provider, designing the workplace literacy training curriculum, and determining appropriate instructional strategies. Each of these aspects of program design will be briefly discussed in this chapter. Again, the reader is advised to consult other references identified at the end of this guide for additional information on workplace literacy curriculum design considerations. The following is only intended to provide an overview of key design concepts and strategies.

Setting Program Goals

Before setting upon the task of designing the actual workplace literacy training program, it is important to establish clear and concise program goals. Goals are simply clear statements of what the training program intends to accomplish. A goal statement is not intended to describe the training process but rather its outcomes. Maintaining a clear focus on the workplace literacy training programs intended outcomes is perhaps the single most important consideration in the design of training programs. Using the information obtained from the needs assessment, program goals and outcomes should be developed in the following areas:

- **Worker-Centered Outcomes** - This pertains to the outcomes individual workers perceive as directly resulting from their participation in the training program. This can include a wide variety of personal goals including assurances of job retention, enhancing skills necessary to warrant salary increases and job advancements, deriving higher levels of respect from supervisors, enhancing their own sense of self esteem and satisfaction, and many other critical areas. These all need to be fully considered prior to the actual design of the workplace literacy training program.

- **Company Outcomes** - The training program needs to be described in terms of its potential impact on improving employee's job performance and productivity. Employers are most interested in addressing the question: "What will workers be able to do on the job when they have completed the program?" The central concern of employers is necessarily with productivity. Training program goals and outcomes must explicitly focus on such factors as expected increases in employee productivity and job performance, employee adaptability and promotability, and likely effect or impact on the company's profit margin.

- **Union Outcomes** - While union goals are naturally associated with those of workers, it is also important to clarify and define the specific goals and outcomes the union expects from the training program. This may likely include improvements in working conditions, increased career advancement possibilities, higher wages, and the like. Keeping these in mind helps to ensure that the training program remains on track and is consistent with union interests.

It is also useful to prioritize among the many goals and outcomes identified. This helps to determine the programs emphasis in key areas. Prioritization can occur through open-ended discussions among planning team members and/or focus groups composed of workers and supervisors. Once the needs assessment findings have been translated into clear and concise goals and outcomes, curriculum development can occur. The more specific goals and outcomes can be stated, the clearer everyone is about what should be included in the training program and what measurable impact to expect from these efforts.

The next step is that of deciding who will design and implement the workplace literacy training program. Some companies, particularly larger ones, undertake workplace literacy training themselves. Others will find it more desirable to recruit a local adult education provider to undertake this task.

Selecting an Educational Partner

Many companies simply do not have the internal resources or expertise available to conduct workplace literacy training programs. Workplace literacy, while not a necessarily new concept, has only recently gained the attention of the private sector. Consequently, few employers, to date, have developed the organizational capacity to plan and deliver organized programs that address the job specific basic skills of workers.

In Minnesota there are several educational programs and resources that can be contacted to assist companies and unions in the design and implementation of workplace literacy training programs. A number of these educational programs were identified and described earlier in Chapter 2 and include Adult Basic Education (ABE) programs, technical colleges, community colleges, as well as several of Minnesota's colleges and universities. Several private nonprofit organizations also offer literacy services to adults who are in need of basic skills instruction. As a starting point, we recommend contacting the ABE program in your local area. A complete listing of ABE programs in Minnesota is provided in Appendix A for your reference.

In selecting an educational partner, it is important to assess its capacity to plan and provide workplace literacy services that are specifically suited to the company, union, and workers needs. Some ABE providers may have limited experience in offering job specific literacy programs and working with business and industry. Other programs may have developed specialized training programs for addressing the needs of adults with English as a second language (ESL). The U.S. Department of Labor and Education, in their publication entitled The Bottom Line: Basic Skills in the Workplace (1988), have emphasized that education providers must demonstrate adaptability, flexibility, and the capacity to address the specific work culture and targeted employee groups needing training. They recommend screening for an appropriate educational partner by examining the following questions:

- What prior experience does the provider have in designing and running job related basic skills programs?

- In past job related basic skills programs, how was success documented? If there is no prior workplace experience, how was success documented in other basic skills programs?

- Does the service provider specialize in developing programs for particular population groups -- for example, limited English speaking adults or displaced workers? Is there evidence that the provider is prepared to deal with the targeted population?

- Does the provider demonstrate an understanding of the company's goals and objectives and how he/she will work with the company to ensure that the program "stays on course" in achieving these objectives?

- What are the components of the total proposed program and what will each component cost? In the case of publicly funded organizations, what part of the cost will they cover?

- What specifically will the provider do to assess the current skills and training needs of employees?

- What will be done to evaluate the effectiveness of the training program?

- What specifically does the provider see as his/her responsibilities? The company's responsibilities?

- What human resources will be required from the company?

- What will be the criteria for selecting the instructor(s) for the program? How will those instructors be supervised?

- How flexible will the provider be? Can additional hours be provided if that becomes necessary?

- Does the time frame for training and achieving the desired results appear realistic?

- Does the provider believe that employees will be able to benefit from the program -- for example, by performing more effectively on the job, reducing their absenteeism, getting promoted, etc.?

Involving ABE professionals, we believe, can be invaluable by saving employers and unions time and other resources. The questions listed above should help employers, union representatives, and workers to screen for an appropriate adult education partner.

Curriculum Design Concepts

Several important concepts and approaches for designing workplace literacy curriculum have recently been offered by a number of researchers (see Hamadasche & Martin, 1986; Mikulecky & Diehl, 1980; and Sticht, 1987). Their perspectives on curriculum design have been borrowed and applied in a variety of industry, organized labor, government, and military settings. Based on these and other viewpoints, a "good" workplace literacy curriculum is based upon the following design principles and practices:

- It is outcome based and worker centered emphasizing individualized approaches to learning and mastering job specific literacy skills.

- It is organized by job tasks, not by discrete basic skills.

- It includes problems and simulated situations that call for the use of basic skills as they are or will be used on the job.

- It uses systematic and flexible instructional approaches to learning.
- It uses actual job materials in instruction.
- It allows workers the opportunity to learn from one another.
- It mutually integrates the goals of workers with the goals of the company.

Three important concepts evolve from these general principles. Each is discussed briefly here to familiarize the reader with these general curriculum design concepts.

Worker-centered and outcome based. Outcome based approaches identify criteria and performance requirements that are used to help move workers toward improved competency levels when performing job tasks. Outcome based educational strategies use a systematic and flexible instructional approach that leads the student, at his or her own pace, from present performance levels to higher levels, step-by-step. This approach structures learning around the development of a group or set of skills or competencies.

In workplace literacy programs, these criteria represent a learning objective in terms of the worker's ability to acquire, integrate, and transfer basic skills knowledge to specific tasks. Outcome based instruction is instruction that is evaluated by indicators of learning and expected performance in present and future job contexts. This high degree of measurability provides an excellent means for more precise program monitoring and evaluation which is many times highly valued by the employer as a measure of training program accountability.

Outcome based strategies also allow for individualization in addressing worker employability and literacy needs. By tailoring learning situations to the individual's own pace and literacy skill levels, the relevance of the training program is more clearly understood and appreciated by the worker. We also advocate the use of individual learning plans (ILP) when planning and conducting workplace literacy training programs. The individual learning plan is used to identify specific worker skills to be developed and prescribe the instructional methodology and strategies for learning these skills. Such plans are typically developed jointly between workers and job literacy training professionals, with union input.

Functional context orientation. A good curriculum for developing workplace literacy skills integrates basic skills with job development. Skills taught in traditional or generic basic skills classes appear to have little direct transfer to the performance of job specific basic skills tasks. Research reviewed by Sticht (1987) and Mikulecky (1985) indicates that basic skills taught in relation to the job context achieved gains at two or three times greater than those made in general literacy programs. In fact, it has been shown that while workers involved in general literacy programs experience gains in everyday reading skills, "general literacy programs make almost no improvement in job related reading" (Sticht, 1987). The importance of developing functional or context specific approaches in the improvement of worker skills is emphasized here.

When using a functional context orientation in the design of workplace literacy curricula a relationship between the worker's learning needs, the context, and what is required in terms of literacy and job performance levels is thoroughly understood. This means that subjects must be assessed with material they actually have to read and, if at all possible, in the settings they usually encounter such material. Teaching workers literacy skills from the specific context of the industry allows the learners to see that the materials are relevant to their employability. This may also help to increase the motivational levels of workers to participate in training programs.

Dynamic nature of the workplace literacy training curricula. In designing a workplace literacy training curriculum it must be acknowledged that job literacy requirements vary extensively from industry to industry, job situation to job situation, and from person to person. Even within the same industry job literacy skills required of workers within similar or the same job classification may vary from company to company. Further, it is often found that even within the same company significant variances in job literacy skill requirements for persons in similar or the same job classification can vary across work units and departments. Due to this variability, curriculum development must be viewed as a "dynamic" process, subject to ongoing needs for upgrading and modification.

We take the position that curriculum efforts which attempt to culminate in the development of a "be all, end all" product are limited. In this view, no curriculum or training product, no matter how well designed and packaged, can adequately generalize across divergent work settings. Commercially produced curriculum be it in print, video, or computer based formats, may be used to supplement the training program, but the most effective approaches involve tailoring the curriculum to the explicit needs of workers and employers within individual work sites. Workers must be taught and assessed with the material and information they actually have to read, calculate, and master, and the training should occur in the settings in which workers encounter these job specific skill requirements.

Determining Instructional Approaches and Strategies

At the onset of designing instructional strategies, it should be recognized that many workers have not been involved in formal educational programs for a number of years. Further, some workers may not have experienced positive outcomes from traditional educational programs and approaches. They may be resistant to educational programs in general and job literacy training may make them even more apprehensive. Traditional classroom teaching approaches may simply not be as effective as other approaches that provide for individualized and small group learning experiences. Several of these alternatives are briefly described here.

Instructional milieu. While methods vary considerably, the interest here is in finding an alternative to the dominant classroom methods of either "frontal teaching" -- the teacher instructing the whole class at once -- or to individual seat work by students. Cooperative learning, for example, has been actively used in educational, business, and government programs since the early 1970s by researchers such as Johnson and Johnson (1985), Hulten and DeVries (1976) and Slavin (1978). In cooperative learning, the expectation is that cooperative tasks are more likely to motivate individuals to learn, that they will provide more individual help to training program participants, and, as a result, achievement will be improved over traditional methods. While a full description of cooperative learning goes beyond the present discussion, the procedures are designed to encourage individuals to help one another to learn and aim to promote both achievement of training objectives and improved social (co-worker) support systems. Group structures are typically four to seven in number and are facilitated by an instructor. Opportunities for individualized or self-paced learning are also strongly advocated. Some workers may be reluctant to participate in classroom based learning whether or not small group or cooperative learning approaches are used. Developing individualized approaches, however, becomes more labor intensive and costly for instructors. The costs of providing opportunities for individualized learning should be fully explored before proceeding.

Peer support. Some workers will tend to feel more comfortable around other persons who share their exact experiences. Many times co-workers often serve as primary sources of support and job information in a company. Learning from co-workers, however, is most often informal and occurs only during chance meetings at work. A second instructional strategy is to consider the use of co-workers in direct learning support roles such as tutors and mentors. In this situation, workers have opportunities to learn from one another as job specific basic skills are developed. This allows opportunities for some workers to develop skills through practice, feedback, and interacting with seemingly non-threatening individuals. Workers can be selectively paired in one-on-one situations and, in other cases, selected workers could be trained to conduct small group or cooperative learning situations. A note of caution is advisable. Workers who are identified to serve in a peer support capacity must be carefully selected and approved by employers, union representatives, as well as other co-workers.

Choosing responsive instructors. Some instructors may not be very experienced in industry based training situations. Others are well versed in literacy education and its applications within the workplace. Criteria for choosing an instructor should be mutually determined between the employer, union, worker representatives. Each party should feel comfortable with instructors selected and assured that they will be sensitive to worker's needs and concerns throughout their involvement in the workplace literacy training program. As described above, volunteer or paid co-worker tutors can be used to supplement professional teaching staff. Other community volunteers can be used in a similar manner.

Summary

Establishing program goals, selecting an appropriate educational partner, designing the curriculum, and determining instructional strategies are the major components that must be considered in developing the workplace literacy training program. The next and final chapter examines ways in which to encourage worker participation in workplace literacy training programs.

CRITERIA FOR CHOOSING INSTRUCTORS

These criteria can help you identify instructors whose teaching approach would support the principal goals and aims of the workplace literacy training program.

- Are the instructors experienced in teaching basic skills to adults?
- Do they have experience with the non-traditional approach to adult education - using teaching materials and curricula that are not school based?
- Have they actually taught in a non-school setting, such as a union hall or workplace (it may be hard to find instructors who have that kind of experience, however)?
- Are they sensitive to workers needs and concerns as learners, including an understanding of skills workers use in their jobs and in their personal lives?
- Are they union members? How knowledgeable are they about unions?
- How well do they know the industry and jobs in which your members work?
- Are they comfortable using a variety of teaching approaches to meet the learning styles of different individuals?
- Are they aware of and sensitive to cultural differences that may exist among union members?
- Are they flexible and willing to cooperate with the union in shaping the curriculum?
- Will they approach learners as equals in a collaborative process?

From AFL-CIO Human Resources Development Institute (1990).

CHAPTER 5

ASSURING MEANINGFUL WORKER PARTICIPATION

Many experienced literacy practitioners as well as employers who have provided basic skills instruction to their workforces, have found that a combination of job-related skills training and some general literacy instruction works well. Motivation remains high when personal, real life literacy needs of the employees are addressed along with job skills requirements.

The Bottom Line: Basic Skills in the Workplace,
U.S. Department of Labor and Education, 1988

Encouraging workers to participate in workplace literacy training programs is a complex and challenging task. Those who could most benefit from the program may be among those who are also most resistant to participating. Some worry that their jobs will be terminated because they have voluntarily come forward to participate in the program. Others feel a deep sense of embarrassment when basic skills are lacking or limited. The principal point here is that worker participation in workplace literacy training programs does not automatically occur and that those involved in making available these programs must use a variety of strategies to encourage worker participation. For some, the loss of their job may be less painful and threatening than admitting to basic skills limitations. This is a reality program developers must be ready to accept.

Assuring maximum worker participation in job specific basic skills training programs can be achieved by adhering to several program marketing and recruitment strategies. The Business Council for Effective Literacy, Human Resources Development Institute, and the federal government has devoted considerable attention to the development of strategies for recruiting workers for job literacy training programs. Several of these strategies are shared here:

- Communicate to workers that their jobs are not threatened and that the program is being offered because the company values them.

- Create as secure and supportive an atmosphere for learning as possible by informing employees about the program's goals, the purpose of training, and expected outcomes.

- Include workplace literacy training as part of the company's normal training agenda. Workers are typically used to receiving training by in-house training and human resources professionals. Incorporating literacy training into these programs simply makes literacy training an extension and conceivably a part of the regular company training activities. Even if outside adult education professionals are used to develop and implement the program, company training staff should be directly involved in all aspects of its conception and operation within the company.

- Don't call the training program a literacy or even basic skills program. Avoid language in marketing and advertising the program which draws attention to worker literacy deficiencies needlessly. Even naming the program something else can be a useful strategy. For example, the Minnesota Teamsters Service Bureau's workplace literacy project in the trucking industry calls its program "The Worker Skills Development Program."

- Maintain confidentiality when workers volunteer to participate in the program. Keep worker basic skills self assessments and/or test results private from supervisors and co-workers. Building an environment for training based on mutual trust between workers and unions, and company officials goes a long way in maximizing worker participation and union support for workplace literacy training programs.

- Provide meaningful incentives that encourage worker participation. Link training program goals whenever possible to these incentives. Incentives can include financial rewards, permitting workers to attend training during regular working hours, providing appropriate support services such as child care and educational counseling, and verbally reinforcing workers for their participation.

- Training programs should also be made available at convenient times of the day and week. The location for training should be readily accessible and set up in a manner conducive to promote active learning. Most often, workplace literacy training programs are conducted at the company site or in a nearby location. Sometimes conducting the training program at a nearby community center can help to reduce the stigma some workers may feel when participating in programs where co-workers are knowledgeable of their participation.

These and other measures are among the primary steps that can be taken by employers and union officials in promoting the program within the company. Several strategies for recruiting and engaging workers in training are discussed next.

Marketing the Program to Workers

Union business agents and shop stewards can play an important role in marketing the program to members. The mere fact that the union backs the program and has been involved in its development automatically legitimizes the training program to company employees. In fact, it may be advisable for unions to assume full responsibility for marketing the workplace literacy training program to its members. This role can be clearly defined in a written cooperative agreement between company officials, union representatives, workers, and adult education professionals, as outlined in Chapter 2 of this guide. Chapter 3 also identified several strategies that can be used to inform workers of the training programs availability. By way of review, several of these techniques included posting flyers in the workplace, publishing notices in the union or company newspaper or newsletter, communicating by word of mouth to co-workers, and making presentations at union meetings.

In attempting to encourage workers who might otherwise hesitate, the union may decide to mount special outreach activities. This might include holding private informational or counseling sessions with individual workers, sending a personal or confidential letter encouraging their participation, holding an informational meeting outside of work in a location away from the company, and other more intensive approaches.

Compulsory Versus Voluntary Participation

The AFL-CIO, Business Council for Effective Literacy, and the American Bar Association Literacy Task Force have thoroughly scrutinized the legal rights of workers concerning mandatory program participation. If the employer objects to voluntary enrollment and requires certain workers to participate in job literacy training several conditions must be met by the employer. When this situation occurs it is strongly recommended that interested parties pursue legal advisement from appropriate counsel on specific worker protections.

In general, however, when the employer makes performance in the literacy program a pre-condition for hiring, promotion, job retention, or demotion, then Title VII of the Civil Rights Act of 1964 applies. Similar to our discussion found in Chapter 3, which concerns mandatory testing used by employers in the workplace, requiring workers to participate in a training program must be thoroughly reviewed for any potential discriminatory effects. Title VII of the Civil Rights Act of 1964 specifically requires that compulsory involvement in training programs must have no adverse impact on a protected group or class of citizens because of race, sex, national origin, or religion. If it does, the employer must show that its policy meets the Title VII criteria for job relatedness and business necessity.

The AFL-CIO and Business Council for Effective Literacy have recently addressed the question as to when employers can require workers to participate in company based training programs. The following is based on their review of federal laws addressing this issue. The Fair Labor Standards Act (FLSA) includes provisions for overtime pay for mandatory after-hours participation of workers in company sanctioned education and training programs. According to the Business Council for Effective Literacy (1988), if the employer is covered by FLSA, and if the worker meets the legal definition of a non-exempt employee, then the employer must observe FLSA requirements for minimum wage and maximum hours of work. Minnesota wage and hour laws also apply and should be reviewed.

Presently, employers do not have to pay workers while they participate in a program if the program meets four conditions set forth by the U.S. Department of Labor Wage and Hour Division, the Business Council for Effective Literacy reports. The four conditions are:

1. The program is held outside of regular working hours.
2. The program is not directly related to the worker's existing job (for example, the program may prepare the worker for advancement into a different job).
3. The employee performs no productive work while attending.

4. Attendance is voluntary and the employee does not think that nonparticipation would hurt his or her employment or advancement potential.

The Human Resources Development Institute (1990) reports that FLSA, as amended in 1989, no longer requires overtime pay under some circumstances. Further, straight time pay is allowed for up to 10 hours of class beyond the 40-hour work week when all of these conditions are met:

- Attendance in the class is required.
- The class offers basic skills education for workers who lack a high school diploma or are performing at less than an eighth grade level.
- The class does not include job specific training.

On the other hand, overtime pay is required when either of the following two conditions are found:

- A required basic skills class adds more than 10 hours to the 40-hour work week.
- The class includes job specific training.

The reader should consult federal and state labor relations officials when considering applicability of the Fair Labor Standards Act and Minnesota wage and hour laws to local situations.

More on Incentives

Throughout this guide a special emphasis has been placed on providing workers meaningful incentives to encourage and promote their participation in workplace literacy training programs. The primary reason for this emphasis is obvious and based on the general principle that "motivated learners are the best learners." Incentives, be they financial or simply positive verbal or written recognition by employers for worker cooperation, go a long way in enhancing worker motivation and interest in training programs.

Culturally, we as Americans respond positively to incentives. Incentives drive our economy, businesses, and workers. The workplace literacy planning team should fully consider the types of incentives that best motivate workers to involve themselves in self enhancement and job specific basic skills training programs. As noted here, financial incentives are not the only forms of rewarding employees for their interest and support of training programs. Listed below are a broad range of incentives that should be considered when planning workplace literacy programs:

- Paid release time for training.
- Pay for attending classes outside of work time.

- A cash bonus for successful completion of the training program.
- Two days of extra paid vacation for participating in training.
- Offering training during regular working hours.
- Hourly increase in wages for successful completion of training.
- Reimbursement for tuition to attend educational programs outside of work.
- Financial support for child care to participate in programs during non-working hours, i.e., evenings and weekends.
- Certificate of attendance signed by the union and employer.
- Letter of commendation placed in the worker's personnel file.

A variety of other incentives can also be identified to enhance worker participation. It is recommended that during the formal needs assessment process workers are questioned on the types of incentives they perceive as important to them. This could be done during individual or group interviews or through survey techniques. This need only entail asking one or two additional questions while obtaining other routine information.

Summary

As described in this guide, there are many strategies that can be used to promote the participation of workers in company based workplace literacy training programs. Employers, union representatives, workers, and adult education professionals should thoroughly identify incentives as part of the overall needs assessment process. Incentives need not be costly or elaborate. Sometimes just verbally acknowledging appreciation for the workers' support and involvement in workplace literacy training programs can go a long way in making the worker feel valued and that the training has meaning in their overall work situation.

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Appendix A

Minnesota Adult Basic Education Contacts

Appendix A

MINNESOTA ADULT BASIC EDUCATION CONTACTS

Katy Mohabir
Alexandria ABE
1224 North Nokomis Street
Alexandria MN 56308
(612) 762-0627

D. Peer Nyberg
American Indian, OIC
1845 East Franklin Avenue
Minneapolis MN 55404
(612) 341-3358

Gwen Grell
Arrowhead Econ. Oppor. Agency
702 3rd Avenue South
Virginia MN 55792
(218) 749-2912

Bob Wagner/John Arenz
Bemidji ABE
15th Street NW
Bemidji MN 56601
(218) 759-3299

Kevin Byrne
Bloomington SHAPE
8900 Portland Avenue South
Bloomington MN 55420
(612) 887-9163

A.V. Penschler
Brainerd ABE
300 Quince Street
Brainerd MN 56401
(218) 829-2915

Vicki Ostrom
Cambridge-Isanti
428 NW 2nd Avenue
Cambridge MN 55008
(612) 689-2796

Brenda Urke
Carver-Scott Cooperative
401 East 4th Street
Chaska MN 55318
(612) 448-5787

Wanda Arenz
Cass Lake/Bena Adult Education
Route 3 Box 4
Cass Lake MN 56633
(218) 335-8259

Diana Kasper/Carol Loomis
Central MN Adult Literacy
310 North 25 Ave Suite 14
St. Cloud MN 56303
(612) 251-1733/252-2312

Ken Severson
St. Croix River Ed. District
320 Main Street
North Branch MN 55056
(612) 464-0420

Rick Hillengass
Department of Corrections
300 Bigelow Building
450 North Syndicate Street
St. Paul MN 55104
(612) 642-0242

Mary Hartnett
Deafness Education Advocacy Foundation (D.E.A.F.)
104 East 7th Place
St. Paul MN 55101-2004
(612) 296-9773

Mark Greenig
Detroit Lakes Technical Coll.
Highway 34 East
Detroit Lakes MN 56501
(218) 847-4418

Beth Tamminen
Duluth Public Schools
2 East 2nd Street
Duluth MN 55802
(218) 727-4804

Antoinette Groe
East Central Cooperative
Box 658
Sandstone MN 55072

Jack Swanson
Employment Action Center
SKILLS 2000
6315 Penn Avenue South
Richfield MN 55423
(612) 861-2361

Susan Amundson
Faribault county ABE
blue Earth Schools
East 6th Street
Blue Earth MN 56013
(507) 526-7162

Pat Wieseler
Faribault Public Schools
16 South Central Avenue
Faribault MN 55021
(507) 334-2064

Alan Judd
Freshwater Education District
RR 3 Box 97A
Staples MN 56479

(218) 894-2497

Don Kramlinger
Hastings School District
1025 Tyler Street
Hastings MN 55033
(612) 438-3955

Mary Eberlein
Hiawatha Valley ABE
215 Pioneer Road
Red Wing MN 55066
(612) 388-8271

Patt Guth
Houston County ABE
West Main Street
Caledonia MN 55921
(507) 724-5139

Boyd Carlson
Hutchinson Technical College
Two Century Avenue
Hutchinson MN 55350
(612) 587-3636

Rose Mary Perrault
Indian Education-Duluth
Lake Avenue & 2nd Street
Duluth MN 55802
(218) 723-4150

Ken Truitner
International Institute of MN
1694 Como Avenue
St. Paul MN 55108
(612) 647-0191

Geoffrey Blanton/ Katherine Cohen
Lao Family Community of MN
976 W Minnehaha Avenue
St. Paul MN 55104
(612) 487-3466

Dorothy Johnson
Park School
Room 111
Le Sueur MN 56058
(612) 665-6244

Jane Coffey
Learning Disabilities Assoc.
2104 Park Avenue
Minneapolis MN 55404
(612) 871-9011

Deborah Simmons
Literacy Training Network
University of St. Thomas
2115 Summit Avenue
St. Paul MN 55105
(612) 647-5188

Joan Eisenreich/ Karen Backlund
Mankato Area Life Lines
110 Fulton Street
Mankato MN 56001
(507) 387-5501

Wanda Ochocki
344 West Main Street
Marshall MN 56258
(507) 537-6767

Nick Temali
Metro East ABE
500 10 Street NW
New Brighton MN 55113
(612) 636-1910

Ben Bryant
Metro East ABE
215 East 9 Street, 2nd Floor
St. Paul MN 55101
(612) 228-3284

Bernell Fedje
Metro North ABE
2727 North Ferry Street
Anoka MN 55303
(612) 422-5244

Diana Dearring
Minneapolis Public Schools
807 NE Broadway
Minneapolis MN 55413
(612) 627-2929

Faith McCaghy/Cathy Koering
Minnesota Valley ABE
100 River Ridge Court
Burnsville MN 55337-1613
(612) 431-8316/895-7397

Laura Jaeger
Minnesota Literacy Council
475 North Cleveland, Suite 303
St. Paul MN 55104
(612) 645-2277

Darla Roy
Moorhead ABE
2215 12 Avenue South
Moorhead MN 56560
(218) 233-4502

Mary Negri
Northwest Hennepin ABE
4139 Regent Avenue North
Robbinsdale MN 55422
(612) 535-1790

Carol Gregerson
Northwest Education
Cooperative Service Unit
114 West 1st Street
Thief River Falls MN 56701
(218) 528-3355

Donna Berg
Pipestone Public School
400 2nd Avenue SW
Pipestone MN 56164
(507) 825-5861

Leo Soukup
Red Lake School district
Four Winds Alternative School
Red Lake MN 56671
(218) 679-3899

Julie Nigon
Rochester Public Schools
815 NW 2nd Avenue
Rochester MN 55901
(507) 285-8603

James Cook
Sabathani Community Center
310 East 38 Street
Minneapolis MN 55409
(612) 827-5981 ext. 39

Jeanne Morphew
South St. Paul Public Schools
700 North 2nd Street
South St. Paul MN 55075
(612) 457-9407

Judy Slettedahl
Southwestern Tech. College
1593 11 Avenue
Granite Falls MN 56241
(612) 564-4511

Dona Anderson
Southwestern Tech. College
401 West Street
Jackson MN 56143
(507) 847-3320

James Baymler
Wadena Technical College
405 SW Colfax, PO Box 566
Wadena MN 56482
(218) 631-3539

John Jensen
Waseca Community Education
501 East Elm Street
Waseca MN 56093
(507) 835-5626

Michael Looby
Westonka ABE
5600 Lynwood Blvd
Mound MN 55364
(612) 472-0340

Carlye Peterson
Hopkins W.H.E.E.L.
1001 Highway 7
Hopkins MN 55343
(612) 933-9248

Suzanne Bishop
White Earth Reservation Tribal
Council
Box 418
White Earth MN 56591
(218) 473-2141

Scarlett Slater
Willmar Public Schools
611 West 5th Street
Willmar MN 56201
(612) 235-5114 ext. 209

Leslie Foote
Winona Adult Literacy Project
654 Huff Street
Winona MN 55987
(507) 454-9450

Jerry Fiola
1450 College Way
Worthington MN 56187
(507) 376-6105

Appendix B

Minnesota and National Contacts

Appendix B

Minnesota and National Contacts

Minnesota Sources

Mr. Brian Kanes
Minnesota Department of Education
Adult Basic Education
997 Capitol Square building
550 Cedar Street
St. Paul, Minnesota 55101
612/296-4026

Mr. Mark Larson
Interagency Adult Learning Advisory Council
Minnesota State Planning Agency
300 Centennial Office Building
658 Cedar Street
St. Paul, Minnesota 55155
612/297-4026

Gayle Anderson
Community and Adult Education
Department of Education Room 988
Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101
612/296-5076

Heather Huseby
Directions
Workplace Literacy Program
Small Business Development Center
4900 Viking Drive
Edina, Minnesota 55435
612/832-6352

Mr. William G. Asp
Library Development and Services
Department of Education, 4th Floor
Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101
612/296-2821

Ms. Tia Henry Minus
Minnesota Literacy Council
475 North Cleveland Avenue
Suite 303
St. Paul, Minnesota 55104
612/645-2277

State Literacy Hotline
Minnesota Literacy Council
612/645-3723
800/225-READ (in-state only)

Deb Simmons
Literacy Training Network (LTN)
College of St. Thomas
PO Box 4032
St. Paul, Minnesota 55105
612/647-5188

Christine Matuzek
Minnesota AFL-CIO
Community Services/Education
Minnesota AFL-CIO
525 Park Street, Suite 110
St. Paul, Minnesota 55103
612/227-7647

Karen Wagner
Minnesota Department of Jobs and Training
Work and Training Unit
Department of Jobs and Training
150 East Kellogg Boulevard, Suite 690
St. Paul, Minnesota 55101
612/297-4572

Jean C. Dunn
Minnesota Teamsters Service Bureau
3014 University Avenue SE
Minneapolis, Minnesota 55414
612/331-2637

Wendy Wiberg
Project Literacy U.S. (PLUS)
Twin Cities Public Television
1640 Como Avenue
St. Paul, Minnesota 55108
612/646-4611

Kitty Christiansen
Learning Disabilities Association (LDA)
2104 Park Avenue South
Minneapolis, Minnesota 55404
612/871-9011

Jerry Isaacs
Minnesota Community Colleges
Remedial/Developmental Programs
550 Cedar Street
St. Paul, Minnesota 55101
612/296-3650

Ellen Cree
Minnesota Literacy Council, Inc. (MLC)
275 North Cleveland Avenue, Suite 303
St. Paul, Minnesota 55104
612/645-2277

Lloyd Petri
Minnesota Technical Colleges
Special Needs/Support Services
550 Cedar Street
St. Paul, Minnesota 55101
612/296-5707

Diane Pecoraro
Minnesota Department of Education
Refugee Educational Programs
550 Cedar Street
St. Paul, Minnesota 55101
612/296-7500

National Sources

Executive Director
American Association for Adult and Continuing Education
1112 Sixteenth Street, NW
Washington, DC 20036
202/463-6333

Wilma McCarley
Business Council for Effective Literacy
1221 Avenue of the Americas
New York, New York 10020
212/512-2415 or 2412

Director of Business Services
National Alliance of Business
1201 New York Avenue NW
Washington, DC 20005
202/289-2888

Southport Institute for Policy Analysis
820 First Street NE
Suite 460
Washington, DC 20002
202/682-4100

Division of Adult Education and Literacy
U.S. Department of Education
400 Maryland Avenue SW
Washington, DC 20202-7240
202/732-2270

Chief of Training Policy
Office of Work-Based Learning
U.S. Department of Labor
200 Constitution Avenue NW
Room N4649
Washington, DC 20210
202/535-0548

Chief, Workplace Literacy Unit
Office of Strategic Planning and Policy Development
U.S. Department of Labor
200 Constitution Avenue NW
Room N5637
Washington, DC 20210
202/535-0677

Literacy Specialist, JOBS Program
Administration for Children and Families
Office of Family Assistance
370 L'Enfant Promenade SW
Fifth Floor
Washington, DC 20477
202/401-4619

Ms. Emille Smith
Assault on Illiteracy Program
410 Central Park West
New York, New York 10025
212/967-4008

Helen B. Crouch
Literacy Volunteers of America
5795 Widewaters Parkway
Syracuse, New York 13214
315/445-8000

Peter Waite
Laubach Literacy Action
1320 Jamesville Avenue
Syracuse, New York 13210
315/422-9121

Anthony R. Sarmiento
AFL-CIO Education Department
815 Sixteenth Street NW
Washington, DC 20006
202/637-5141

National Clearinghouse on Adult Literacy Education (ESL)
Vice President, Center for Applied Linguistics
1118 22nd Street NW
Washington, DC 20037
202/429-9292

Sharon Darling
National Center for Family Literacy
1 Riverfront Plaza, Suite 608
Louisville, Kentucky 40202
502/584-1133

Annette Laico
Literacy Initiatives
United Way of America
701 North Fairfax Street
Alexandria, Virginia 22314-2045
703/836-7100

CONTACT Literacy Center
PO Box 81826
Lincoln, Nebraska 68501
800/228-8813 (Literacy Hotline)

Eunice N. Askov
Institute for Study of Adult Literacy
Pennsylvania State University
203 Rackley Building
University Park, Pennsylvania 16802
814/863-3777

Executive Director
UAW-General Motors Human Resource Center
2630 Featherstone Road
Auburn Hills, Michigan 48057
313/377-2450

Appendix C

Workforce and Workplace Literacy Selected References

Appendix C

Workforce and Workplace Literacy Selected References

[From Business Council for Effective Literacy (January 10, 1992), New York, NY]

Job-Related Basic Skills: A Guide for Planners of Employee Programs, by the Business Council for Effective Literacy, 1987, 45 pages. The guide gives step-by-step guidelines for planning and implementing an effective job-related basic skills program for employees. Three major sections cover general principles to guide workplace efforts, specifics on developing and operating a program, and special issues to consider. To illustrate the application of procedures and principles, 14 programs are profiled. Available for $15 prepaid from BCEL, 1221 Avenue of the Americas, 35th Floor, New York, NY 10020.

The Bottom Line: Basic Skills in the Workplace, a joint publication of the U.S. Department of Labor and Education, 1988, 50 pages. Provides analysis and discussion of the workplace basic skills problem and gives detailed guidelines on how to develop a good workplace program. Charts are presented on how to perform a literacy audit and evaluate workplace literacy programs. Numerous programs are profiled to illustrate the application of procedures and principles. Available for $3.25 from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Specify Stock # 029-000-00424-2.

Worker-Centered Learning: A Union Guide to Workplace Literacy, AFL-CIO, 1990, 130 pages. The first section of the guide examines definitions of literacy and the status and role of workplace literacy today. The second section lays out a nine-step plan to follow in designing worker-centered basic skills programs, giving examples of current union efforts. First copy available at no charge from the Human Resources Development Institute, AFL-CIO, 815 Sixteenth Street NW, Washington, DC 20006.

Training Partnerships: Linking Employers and Providers, by Carnevale, Gainer, Villet, & Holland, reports on a study conducted by the American Society for Training and Development and the U.S. Department of Labor on the use of outside providers of training. It identifies provider groups and systems, examines how employers interact with them,a nd gives guidance to employers on how to make informed decisions when buying outside training help. Single copies are available free from Fulfillment Department, ASTD, 1630 Duke Street, Alexandria, VA 22314.

Literacy at Work: The Workbook for Program Developers is a new workplace skills program training manual developed by Jorie Philippi of Performance Plus Learning Consultants. It is designed to help businesses help themselves in developing effective workplace skills programs. Performance Plus offers training seminars and workshops to help literacy professionals and corporate personnel better understand the functional context approach and to learn to use the manual to implement programs. The manual is $200 from Simon & Schuster Workplace Resources, PO Box 1230, Westwood, NJ 07675-9855, 800-223-2336. For information on Performance Plus' technical assistance services, contact Jorie Philippi, President, Performance Plus Learning Consultants, 7869 Godolphin Drive, Springfield, VA 22153, (703) 455-1735.

Workforce 2000: Work and Workers for the 21st Century, by Johnston & Packer of the Hudson Institute for the U.S. Department of Labor, 1988. A groundbreaking report on the changing demographics of the American workforce and implications for workforce skills upgrading. Available for $4.50 from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

JUMP START: The Federal Role in Adult Literacy, by Chisman, Southport Institute for Policy Analysis, 1989. A major conclusion of this report is that the national literacy effort should have a major focus on basic skills for the currently employed. Available for $5 a copy from Southport Institute, 440 First Street NW, Suite 415, Washington, DC 20001.

Workforce/Workplace Literacy Packet includes a selection of national newsletters put out by the Business Council for Effective Literacy, collected newspaper and magazine articles on aspects of workplace/workforce literacy, an annotated workplace/workforce bibliography, a BCEL reprint of the 1988 *Business Week* feature "HUMAN CAPITAL: The Decline of America's Workforce," and other reprints and resource materials. Available for $15 prepaid from BCEL, 1221 Avenue of the Americas, 35th Floor, New York, NY 10020.

Appendix D

Forms

Figure A

ORGANIZATIONAL ANALYSIS WORKSHEET

Company ____________________
Analyst ____________________
Team Reviewers ____________________
____
____
Department ____________________

Date of Analysis ____________________
Action Needed ____________________
____
____
Department Head ____________________
____

PROBLEM DESCRIPTION	CAUSES/SOURCES					JOB AREA(S) AFFECTED
	New equipment or technology	Production Process	Worker Job Skills Low	Worker Basic Skills Low	Other or Can't Tell	

Figure B

JOB DESCRIPTION

Job Title ______________________	Date Reviewed ____________________
Reports to ______________________	Analyst ____________________
Department ______________________	Approved by ____________________

Job Summary:

Job Qualifications:

Job Responsibilities:

Figure C

JOB TASK SUMMARY

Job Title ______________________

Reports to ______________________

Department ______________________

Date Reviewed ______________________

Analyst ______________________

Approved by ______________________

Task Analysis:

Figure D

JOB TASK IMPORTANCE INVENTORY

Job Title ______________________

Reports to ______________________

Department ______________________

Date Reviewed ______________________

Analyst ______________________

Approved by ______________________

Directions: Some tasks you perform are more important or significant for your job than others. Read each task statement carefully and decide how important the task is in your present job. Circle only one response for each job task identified.

Job Task	Importance Level						Score
	not at all	low	slightly	somewhat	high	extreme	
1.	0	1	2	3	4	5	
2.	0	1	2	3	4	5	
3.	0	1	2	3	4	5	
4.	0	1	2	3	4	5	
5.	0	1	2	3	4	5	
6.	0	1	2	3	4	5	
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
Total Score							

Figure E

GENERAL JOB TASK BASIC SKILLS ANALYSIS

Job Title ____________________

Reports to ____________________

Department ____________________

Date Reviewed ____________________

Analyst ____________________

Approved by ____________________

Directions: Performing job tasks day-to-day requires that you use several types of basic skills, i.e., reading, mathematics, writing, listening, and speaking. Some of these basic skills are used more than others in relation to each job task or duty. Read each job task statement carefully and describe, using the scale provided below, the general level of basic skills you feel are required to successfully perform each of your job tasks. For each of the job tasks listed, indicated by using a 0, 1, 2, or 3 (as noted below) the basic skill level required for this task across all five basic skill categories.

0 = This basic skill does not apply to this job task.
1 = This basic skill is used, but only minimally to complete this job task.
2 = This basic skill is important to the completion of this job task.
3 = This basic skill is very important for the completion of this job task.

Job Task	BASIC SKILL USAGE					Score
	Reading	Mathematics	Writing	Listening	Speaking	
Total Scores						

Figure F

EMPLOYEE BASIC SKILLS INVENTORY

Name ____________________
Job Title ____________________
____
Department ____________________

Date Completed ____________________

Department Head ____________________

Directions: To perform job tasks requires that we routinely use different types of basic skills, i.e., reading, mathematics, writing, listening, and speaking. How basic skills are used and required to complete certain job tasks varies from job to job. Everyone differs in their abilities to read, do mathematics, write, listen, and speak. To complete this form, read each task statement carefully and describe, using the rating scale below, what you feel are your current basic skill levels. For each job task, please place your rating in each of the five basic skill areas, i.e., reading, mathematics, writing, listening, and speaking, identified below. Use the following scale:

0 = This basic skill does not apply to this job task.
1 = My basic skills are above what is now needed for this job task.
2 = My basic skills are at the level which is needed for this job task.
3 = My basic skills are somewhat below what is needed for this job task, but I get by OK.
4 = My basic skills are somewhat below what is needed for this job task, and I am experiencing some job difficulties because of it.
5 = My basic skills are below what is needed for this job task and I would be interested in improving this skill.

Job Task	BASIC SKILL USAGE					Score
	Reading	Mathematics	Writing	Listening	Speaking	
Total Scores						

Figure G

JOB SUMMARY AND PLANNING WORKSHEET

Job Task	Importance Weight	Basic Skill Usage						Worker Skill Assessment						Total Score
		R	M	W	L	S	Total	R	M	W	L	S	Total	
Total Scores														

Figure H

INDEPTH ANALYSIS OF BASIC SKILL NEEDS	
Job Title: Targeted Basic Skills Areas:	